Panasonic®
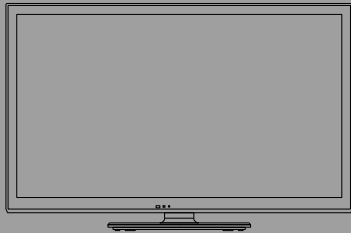
Operating Instructions
LED TV

VIErA

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

English

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2

Transport only in upright position

Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/ or performance from usage of such other maker's peripheral devices.

Contents

Be Sure to Read

Quick Start Guide

Enjoy your TV!
Basic

Advanced

Others

3

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 use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
  - Do not move the TV with the lead plugged in the socket outlet.
  - Do not place a heavy object on the lead or place the lead near a high-temperature object.
  - Do not twist the lead, bend it excessively or stretch it.
  - Do not pull on the lead. Hold onto the mains plug body when disconnecting the lead.
  - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!
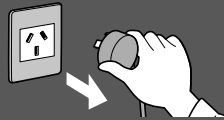
**AC 220-240 V
50 / 60 Hz**
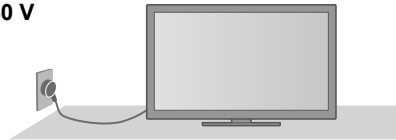
Power source / Installation
- This TV is designed for:
  - AC 220-240 V, 50 / 60 Hz
  - Table-top use
  - Indoor use

Do not remove covers and NEVER modify the TV yourself
- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Do not expose to direct sunlight and other sources of heat
- Avoid exposing the TV to direct sunlight and other sources of heat.

To prevent the spread of fire, keep candles or other open flames away from this product at all times

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

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

Do not place the TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base
- The TV may fall off or tip over.

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

Do not allow children to handle SD Card or dangerous parts
- As with any small object, the SD Card could be swallowed by young children. Please remove SD Card immediately after use and store out of reach of children.
- This product contains possibly dangerous parts that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

4

Important Installation Notices

Install the 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 televisions 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 energised TV may cause electric shock.

Remove the mains plug from the wall socket when the TV is not in use for a prolonged period of time

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

Do not apply strong force or impact to the display panel

- This may cause damage resulting in injury.

Do not block the rear air vents

- Adequate ventilation is essential to prevent failure of electronic components.
- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.
- We recommend that a gap of at least 10 cm is left all around this TV even when placed inside a cabinet or between shelves.
- When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set.
- If pedestal is not used, ensure the vents in the bottom of the TV are not blocked.

Minimum distance

10 / 10 / 10 / 10 (cm)

Safety Precautions

5
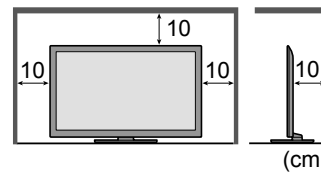
Accessories / Options

Standard accessories

Remote Control
● N2QAYB000760

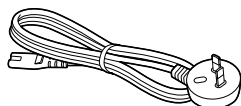**Batteries for the Remote Control (2)**
● R6 (AA)
➡ **(p. 8)**

Pedestal
➡ **(p. 7)**
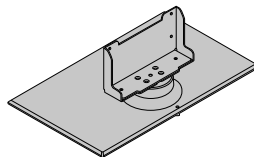
Mains Lead

Operating Instructions with Warranty statement

Fall-prevention parts
➡ **(p. 8)**

● Accessories may not be placed all together. Take care not to throw them away unintentionally.
● This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Optional accessories

Please contact your local Panasonic dealer to purchase the recommended optional accessories. For additional details, please read the manual of the optional accessories.
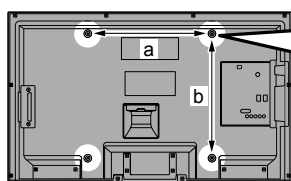
Wall-hanging bracket

Choosing to wall mount the TV shall be done at the owner's risk. Always use a qualified installer to perform a TV wall bracket installation. Incorrect fitting may cause equipment to fall, resulting in injury and product damage. Any such damage will void your warranty.

● TY-WK3L2RW (for 32" class only) The angle of wall-hanging bracket can be adjusted in "zero tilting (vertical)" and "5 or 10-degree tilting" for this TV.
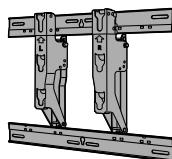
● Holes for wall-hanging bracket installation

Rear of the TV

(View from the side)

Depth of screw:

	32" class	39" class
minimum	13 mm	21 mm
maximum	17 mm	23 mm

Diameter: M6

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

32" class
a: 200 mm
b: 200 mm

39" class
a: 400 mm
b: 400 mm

Warning

● When optional accessories such as wall brackets etc. are used, always read and follow the manufactures installation and usage instructions.
● Do not mount the unit directly below ceiling lights (such as spotlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.
● When installing wall brackets you must ensure the wall bracket is not electrically grounded to metal wall studs. Always ensure that there are no electrical cables, pipes etc. in the wall before you begin the wall bracket installation.
● To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

6

Attaching / removing the pedestal

Do not disassemble or modify the pedestal.
● Otherwise the TV may fall over and become damaged, and personal injury may result.

<Caution>

Do not use any pedestal other than the one provided with this TV.
● Otherwise the TV may fall over and become damaged, and personal injury may result.
Do not use the pedestal if it becomes warped or physically damaged.
● If you use the pedestal while it is physically damaged, personal injury may result. Contact your local Panasonic dealer immediately.
During set-up, make sure that all screws are securely tightened.
● If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.
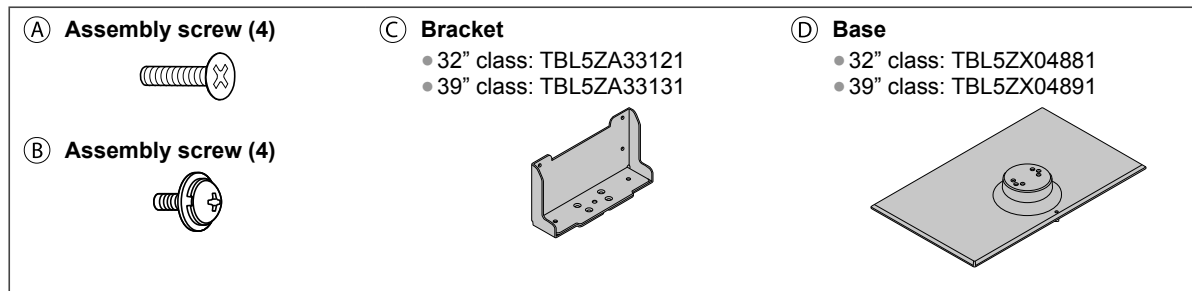**Ensure that the TV does not fall over.**
● If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.
Two or more people are required to install and remove the TV.
● If two or more people are not present, the TV may be dropped, and personal injury may result.
When removing the pedestal from the TV, do not remove the pedestal by the methods other than the specified procedure. ➡ **(below)**
● Otherwise the TV and / or pedestal may fall over and become damaged, and personal injury may result.

Ⓐ **Assembly screw (4)**

Ⓑ **Assembly screw (4)**

Ⓒ **Bracket**
● 32" class: TBL5ZA33121
● 39" class: TBL5ZA33131

Ⓓ **Base**
● 32" class: TBL5ZX04881
● 39" class: TBL5ZX04891

1 Assembling the pedestal
Use the assembly screws Ⓐ to fasten the bracket Ⓒ to the base Ⓓ securely.
● Make sure that the screws are securely tightened.
● Forcing the assembly screws the wrong way will strip the threads.

Ⓐ
Ⓒ
Front
Ⓓ
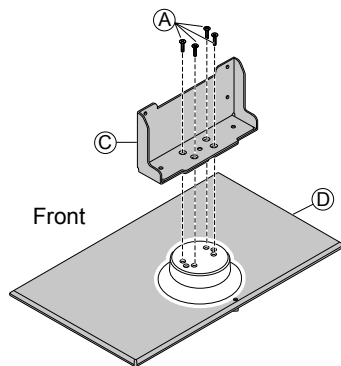
2 Securing the TV
Use the assembly screws Ⓑ to fasten securely.
● Tighten the four assembly screws loosely at first, then tighten them firmly to fix securely.
● Carry out the work on a horizontal and level surface.

Arrow mark

Hole for pedestal installation

Ⓑ
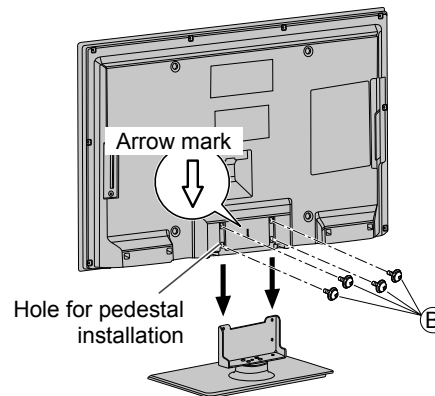
Removing the pedestal from the TV
Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

1 Remove the assembly screws Ⓑ from the TV.
2 Pull out the pedestal from the TV.
3 Remove the assembly screws Ⓐ from the bracket.

Preventing the TV from falling over

This TV could fall over if it is pushed, pulled or knocked down.
We therefore recommend the TV is secured to the furniture as illustrated.

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

Ⓔ **Band**	Ⓕ **Screw**	Ⓖ **Wood screw**

Securing to a furniture
Fix pedestal and furniture together with band.

Screw
Wood screw
Band
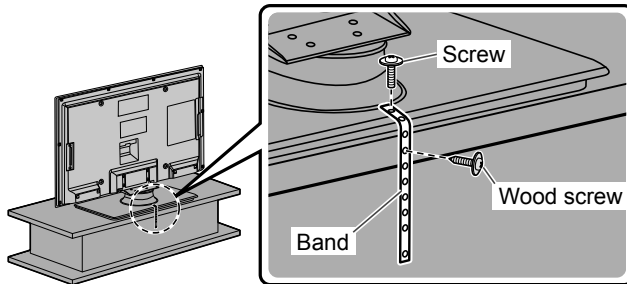
- This image is for illustrative purposes only.

Installing / removing remote's batteries

1

Open

Hook

2

Close

Note the correct polarity (+ or -)
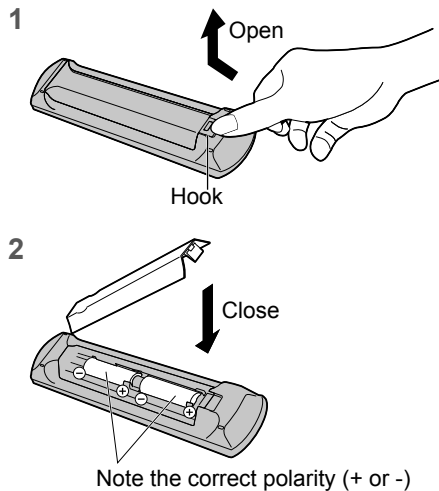
Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
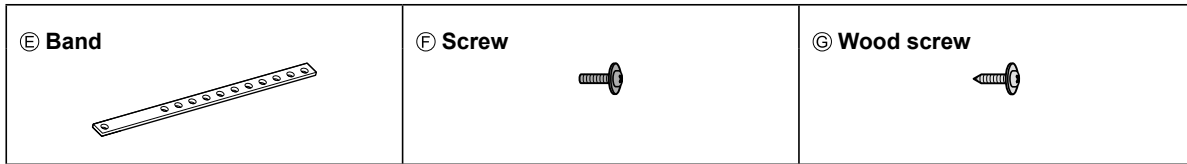- Do not mix old and new batteries.
- Replace only with same or equivalent type. Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or break up batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Make sure you dispose of batteries correctly.
- Ensure batteries are replaced correctly, there is danger of explosion and fire if battery is reversed.
- Do not disassemble or modify the remote control.

Accessories / Options

8

Identifying Controls

Remote Control
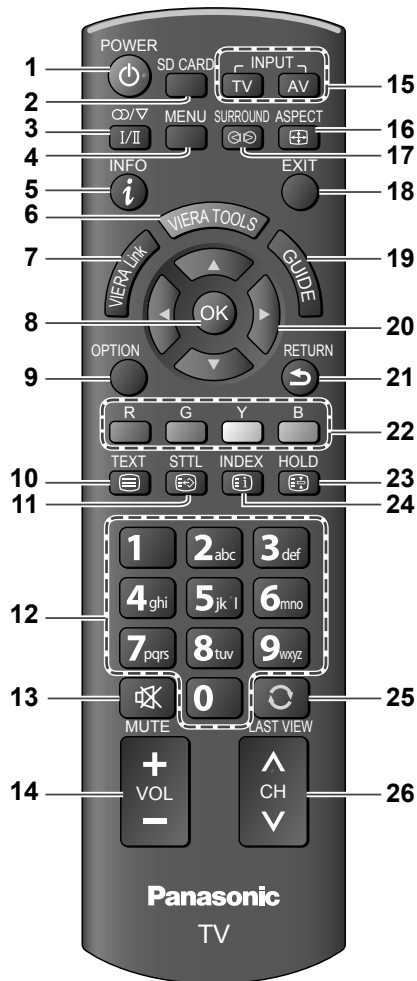
1 Standby On / Off switch
- Switches TV On or Off standby

2 [Media Player] ⇒ **(p. 38)**
- Switches to SD Card and USB device viewing / listening mode

3 Sound Selection
- Changes the sound track in Digital TV mode (if available)
- Changes multiplex sound mode in Analogue TV mode (if available) ⇒ **(p. 52)**

4 [Main Menu] ⇒ **(p. 24)**
- Press to access Picture, Sound and Setup Menus

5 Information ⇒ **(p. 16)**
- Displays channel and programme information

6 VIERA TOOLS ⇒ **(p. 23)**
- Displays some special feature icons and accesses easily

7 [VIERA Link Menu] ⇒ **(p. 44)**
- Accesses VIERA Link Menu

8 OK
- Confirms selections and choices
- Press after selecting channel positions to quickly change programme

9 [Option Menu] ⇒ **(p. 17)**
- Easy optional setting for viewing, sound, etc.

10 Teletext ⇒ **(p. 20)**
- Switches to teletext mode

11 Subtitles ⇒ **(p. 15)**
- Displays subtitles

12 Numeric buttons
- Changes channel and teletext pages
- When in Standby mode, switches TV On

13 Sound Mute
- Switches sound mute On or Off

14 Volume Up / Down

15 Input mode selection
- TV - switches Digital TV / Analogue TV mode ⇒ **(p. 15)**
- AV - switches to AV input mode from Input Selection list ⇒ **(p. 22)**

16 Aspect ⇒ **(p. 18)**
- Changes aspect ratio

17 Surround ⇒ **(p. 26)**
- Switches surround sound setting

18 Exit
- Returns to the normal viewing screen

19 Guide ⇒ **(p. 19)**
- Displays Freeview Guide

20 Cursor buttons
- Makes selections and adjustments

21 Return
- Returns to the previous menu / page

22 Coloured buttons
- Used for the selection, navigation and operation of various functions

23 Hold
- Freeze / unfreeze picture ⇒ **(p. 15)**
- Holds the current teletext page (teletext mode) ⇒ **(p. 20)**

24 Index ⇒ **(p. 20)**
- Returns to the teletext index page (teletext mode)

25 Last View ⇒ **(p. 17)**
- Switches to previously viewed channel or input modes

26 Channel Up / Down
- Selects channel in sequence

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Indicator / Control panel

1 Function select
- [Volume] / [Contrast] / [Brightness] / [Colour] / [Sharpness] / [Tint] (NTSC signal) / [Bass]* / [Treble]* / [Balance] / [Digital TV Auto Tuning] / [Analogue TV Auto Tuning]
  *[Music] or [Speech] mode in the Sound Menu

2 Channel Up / Down, Value change (when using the F button), Switching the TV on

3 Changes the input mode

4 Mains power On / Off switch
- Use to switch the mains power.
  If you turned the TV off during Standby mode by the remote control last time, the TV will be in Standby mode when you turn the TV on with Mains power On / Off switch.

- When pressing the control panel button (1 - 4), the control panel guide appears on the right side of the screen for 3 seconds to highlight the pressed button.

5 Remote control signal receiver
- Do not place any objects between the TV remote control signal receiver and remote control.
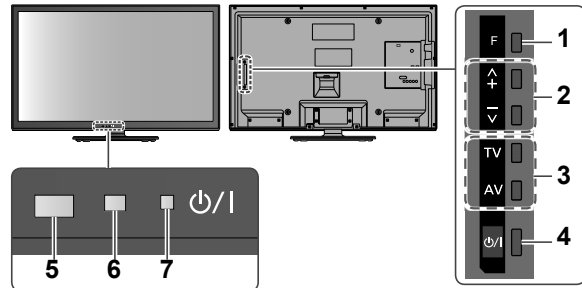
Rear side of the TV

6 C.A.T.S. (Contrast Automatic Tracking System) sensor
- Senses brightness to adjust picture quality when [Eco Mode] in the Picture Menu is set to [On].
  ➡ **(p. 25)**

7 Power LED
  Red: Standby
  Green: On
- The LED blinks when the TV receives a command from the remote control.

Using the On Screen Displays - Operation guide

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

■ Operation guide

Operation guide will help you to operate by using the remote control.
Example: [Sound Menu]

Sound Menu		1/2
Mode	Music	
Bass		0
Treble		0
Balance		0
Surround	Off	
Auto Gain Control	Off	
Volume Correction		0
Speaker Distance to Wall	Over 30cm	
MPX	Mono	

Select
● EXIT
● Change
● RETURN
Page up
Page down
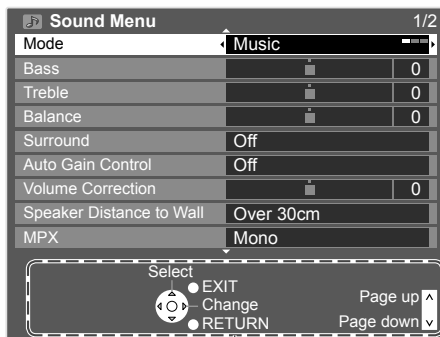
Operation guide

■ How to use remote control

MENU — Open the main menu

Move the cursor / select from a range of options / select the menu item (up and down only) / adjust levels (left and right only)

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

RETURN — Return to the previous menu

EXIT — Exit the menu system and return to the normal viewing screen

Auto power standby function

The TV will automatically go into Standby mode in the following conditions:
- No signal is received and no operation is performed for 30 minutes in Analogue TV mode.
- [Off Timer] is active in the Setup Menu. (p. 15)
- No operation is performed for the period selected in [Auto Standby] (p. 29).

10

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.

Terminals
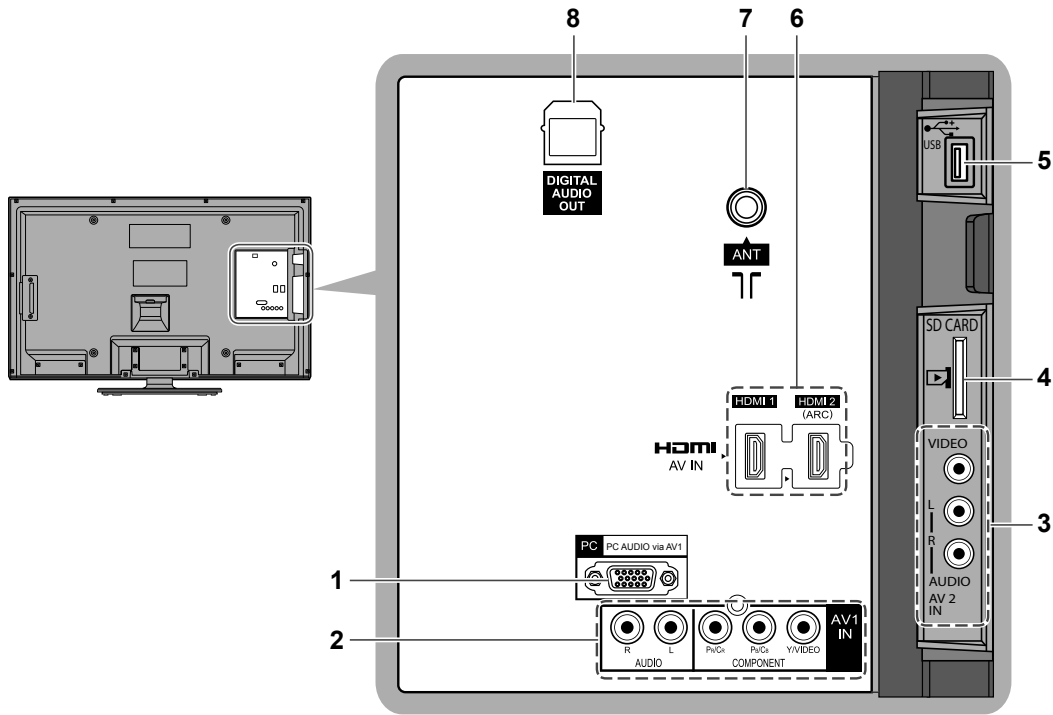
1 **PC** ⇒ (p. 51)

2 **AV1 IN** ⇒ (p. 50, 51)

3 **AV2 IN** ⇒ (p. 51)

4 **SD Card slot** ⇒ (p. 38)

5 **USB port** ⇒ (p. 38, 51)

6 **HDMI 1 - 2** ⇒ (p. 13, 50)

7 **Antenna terminal** ⇒ (p. 12)

8 **DIGITAL AUDIO OUT** ⇒ (p. 50)

11

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Connections

Mains lead and aerial

Aerial

■ Digital TV, Analogue TV

RF cable

■ Mains lead

Insert the mains plug (supplied) firmly into place.
● When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

Mains lead

AC 220-240 V
50 / 60 Hz

✔   ✘
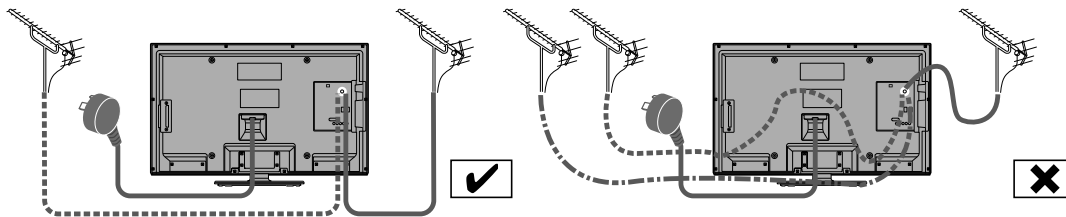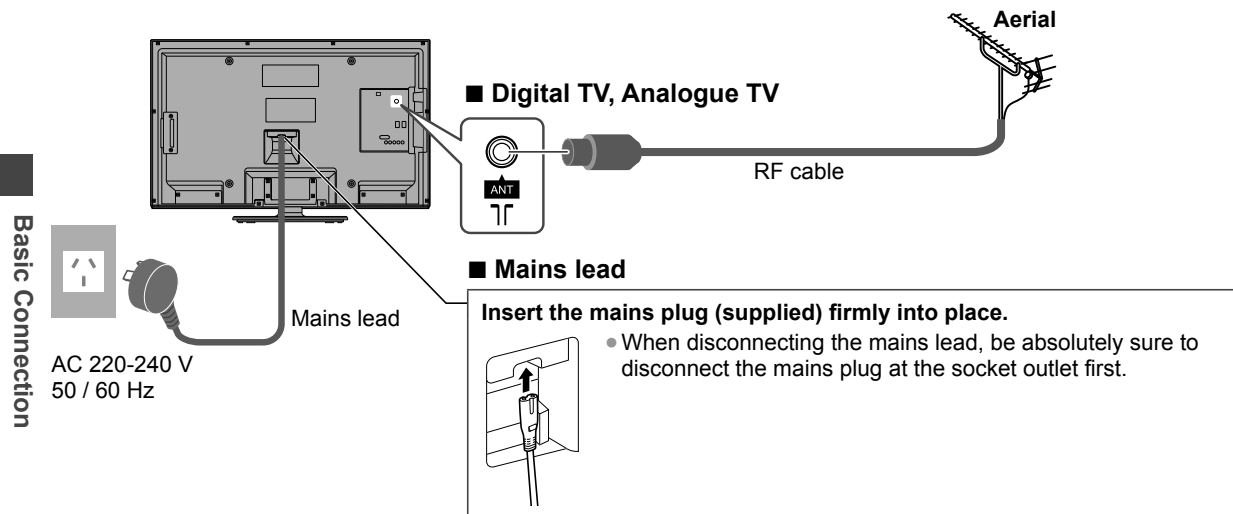
If the aerial is placed in the wrong location, interference might happen.

Note

● Keep the space between the TV and RF cable to prevent distorted image.
● Do not put the RF cable close to the mains lead to avoid noise.
● Do not place the RF cable under the TV.
● To obtain optimum quality picture and sound, an aerial, the correct cable (75 Ω coaxial), and the correct terminating plug are required.
● If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
● Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
● Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.
● To obtain optimum quality picture, select either an Aerial or a cable TV network.

12

AV devices

■ Player

TV

HDMI 1

HDMI cable

Player

■ DVD Recorder / VCR

TV

ANT

Aerial

DVD Recorder / VCR

RF cable

RF cable

■ Set top box

TV

HDMI 1

Satellite dish

Set top box

HDMI cable
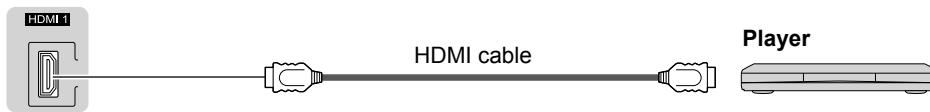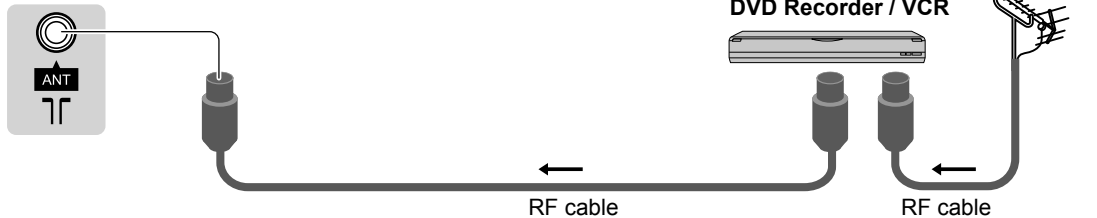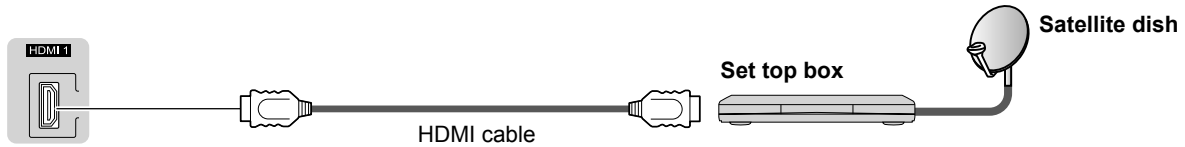
> **Note**
> ● Please also read the manual of the equipment being connected.
> ● Keep the TV away from electronic equipment (video equipment, etc.) or equipment with an infrared sensor.
>   Otherwise, distortion of image / sound may occur or operation of other equipment may be interfered.
> ● When using a HDMI cable, use the fully wired one.
> ● Check the type of terminals and cable plugs are correct when connecting.

Auto Tuning

Search and store TV channels automatically.
● These steps are not necessary if the setup has been completed by your local dealer.

1 **Plug the TV into mains socket and switch On**

⏻/I
● You can now use the remote control to turn On the TV or switch the TV to Standby mode. (Power LED: On)

2 **Start Auto Tuning**

TV Signal Selection	
☑ 📺 Digital TV	
☑ 📺 Analogue TV	
Start Auto Tuning	
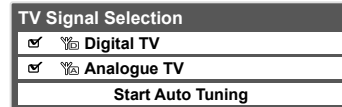
① select
② tune / skip / start

1 Select the TV Signal
☑ : tune
☐ : skip

Auto Tuning			
Digital TV Scan	CH 21		69
Analogue TV Scan	CH 1		120
This will take about 6 minutes.			
RF Ch	Channel Name	Type	Quality
62	CBBC Channel	Digital TV	10
62	BBC Radio Wales	Digital TV	10
62	E4	Digital TV	10
62	Cartoon Nwk	Digital TV	10
29		Analogue TV	-
33		Analogue TV	-
Digital TV: 4	Radio: 0 Analogue TV: 2		
	Searching		

2 Select [Start Auto Tuning]
● Auto Tuning will start to search for TV channels and store them.
The sorted channel order depends upon the TV signal, the broadcasting system and reception conditions.

3 **Select [Home]**

| Please select your viewing environment. | | *
|---|---|
| Home | Shop |
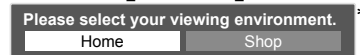
① select
② confirm

Auto Tuning is completed
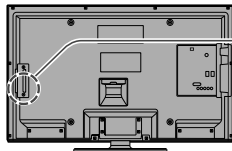
POWER
INFO
OK
RETURN
Y
1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

Panasonic
TV

✱**Viewing environment mode**
Home : Recommended mode for viewing at home. Select [Home] for optimal picture / power consumption. [Viewing Mode] is set as [Normal] (p. 25).
Shop : Demonstration mode to explain main features of this TV (for in-store display). [Viewing Mode] is set as [Dynamic] (p. 25).

To return to viewing environment selection mode if you selected [Shop]

Shop	
You have selected shop mode	

RETURN
OK

Automatic Demo	
Off	On

RETURN

Please select your viewing environment.	
Home	Shop

RETURN
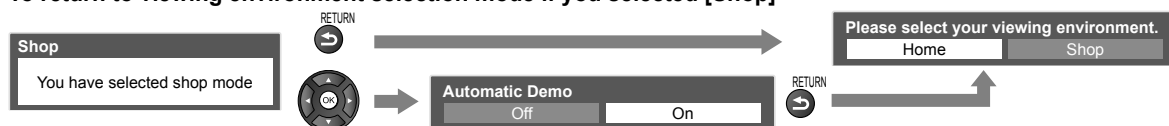
● To change viewing environment mode later on, reset all settings by accessing Shipping Condition.
➡ **[Shipping Condition] (p. 36)**

14

Watching TV

1 Turn power on

● Mains power On / Off switch should be On. (p. 10)

2 Select Digital TV or Analogue TV mode

The selected mode is displayed.

Digital TV

1 BBC ONE WALES 23:35 All Digital Channels
Coronation Street Select favourites
23:00 - 23:55 ◄ Now ►

Information banner appears whenever you select a channel
● For details ➡ **(p. 16)**

● It is also possible to select the mode pressing the TV button repeatedly on the TV. (p. 10)

3 Select a channel

∧
CH — up
∨ — down

or

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0
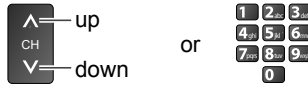
● To select the two or three-digit channel number, e.g. 112

1 1 2abc (in a short time)

● If one or two-digit channel number, e.g. 39

3def 9wxyz OK (quickly changes the channel)

■ To select from the Channel List

OK

All Digital Channels
6	Cartoon Nwk
7	BBC Radio Wales
8	BBC Radio Cymru
1	BBC ONE Wales
2	BBC THREE
3	BBCi
4	CBBC Channel

① select channel
② watch

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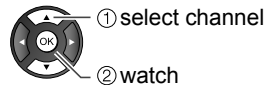
Hold

Freeze / unfreeze picture

HOLD

Display subtitles

Display / hide subtitles (if available)

STTL

Off Timer

Turn the TV off automatically after a fixed period of time [Off / 15 / 30 / 45 / 60 / 75 / 90 minutes]

1 Display the menu

MENU

2 Select [Setup]

VIERA Main Menu
▱ Picture
♪ Sound
⚙ Setup
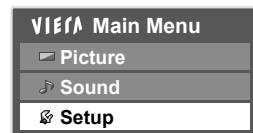
3 Select [Off Timer] and set the time

Setup Menu
Off Timer	Off
Eco Navigation	
Child Lock	
Digital TV Tuning Menu	
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	

OK change
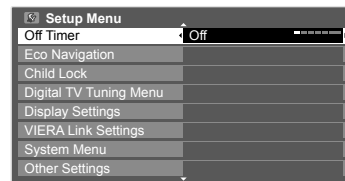
● To cancel
➡ Set to [Off] or turn the TV off.
● To display the remaining time
➡ "Display Information banner" (p. 16)
● When the remaining time is within 3 minutes, the remaining time will flash on screen.

Display Information banner

Display Information banner

INFO
ℹ️
● Also appears when changing a channel

Digital TV mode

Channel position and name — Current time

| 1 BBC ONE WALES | 23:35 | All Digital Channels |

Programme — Coronation Street — Select favourites

23:00 - 23:55   ◄ Now ►   Software update

🔇   Rating: PGR   Bad Signal   AD   📧 ▤ I/II   45

Programme Start / Finish time   (or Encrypted)

Analogue TV mode

| 1 BBC | 21:35 | All Analogue Channels |

CH 02   Prompt Street

🔇   ◯◯   ▤   45

Channel Status
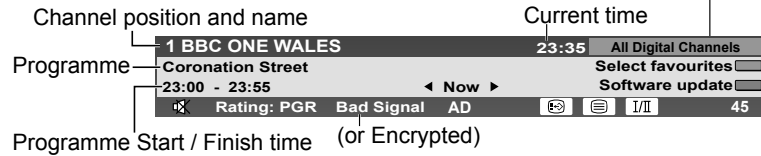
Features available / Message meanings

🔇	Sound mute On	📧	Subtitle service available (Digital TV mode)
[Rating]	Rating information ➡ (p. 52) (Digital TV mode)	I/II	Multiple image or audio available (Digital TV mode)
[Bad signal]	Poor TV signal quality (Digital TV mode)	▤	Teletext service available
[Encrypted]	Scrambled programme (Digital TV mode)	◯◯, I, II, ▽	Audio mode (p. 52) (Analogue TV mode)
[AD]	Audio Description service available	**1 - 90**	Off Timer remaining time ● For settings ➡ (p. 15)
	● This function can aid visually-impaired viewers by adding an additional audio track to describe events on-screen.		
	● For settings ➡ (p. 27)		

● To confirm another tuned channel name

● To watch the programme listed in the banner

● Information on the next programme (Digital TV mode)

● To select a favourite list (Digital TV mode)
(if the favourite list is created in)
([Favourites Edit] ➡ p. 30)

B

● To update the TV software (if available)

R

● To hide

EXIT

● Extra information
(press again to hide the banner)
(Digital TV mode)

INFO
ℹ️

● To set display timeout
➡ **[Banner Display Timeout] (p. 29)**

16

Watching TV

Display the selectable settings for the current programme

1 Check or change the current programme status instantly

OPTION

2 Change

① select
② change

[Video Selection] (Digital TV mode)
Allows you to select the image (if available)

[Audio Selection / AD] (Digital TV mode)
Allows you to select between alternative languages for sound tracks (if available)

[Dual Audio] (Digital TV mode)
Allows you select stereo / monaural

[Subtitle Language] (Digital TV mode)
Allows you to select the language in which subtitles should appear (if available)

[MPX] (Analogue TV mode)
Selects multiplex sound (if available) ➡ **[Sound Menu] (p. 27)**

[Volume Correction]
Adjusts the volume of an individual channel or input mode ➡ **[Sound Menu] (p. 27)**

Last view

Switch to previously viewed channel or input mode easily

LAST VIEW

● Press again to return to the present view.

Note

● Switching channel is not available while Direct TV Recording is in progress.
● Watching less than 10 seconds is not regarded as the previously viewed channel or input mode.

Watching TV

17

Change aspect ratio

Enjoy viewing the image at its optimum size and aspect.
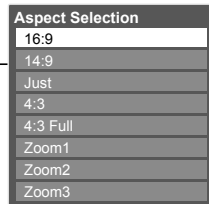
Press repeatedly until you reach the desired mode

ASPECT
⊞

■ You can also change the aspect mode using the Aspect Selection list

1 Display the Aspect Selection list

ASPECT
⊞

Aspect Selection

| 16:9 |
| 14:9 |
| Just |
| 4:3 |
| 4:3 Full |
| Zoom1 |
| Zoom2 |
| Zoom3 |

2 While the list is displayed, select the mode

① select

② change

[16:9]
Directly displays the image at 16:9 without distortion (anamorphic).
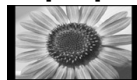
[14:9]
Displays the image at the standard 14:9 without distortion.

[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.
● HD signal only

[Zoom1]
Displays a 16:9 letterbox or 4:3 image without distortion.
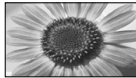
[Zoom2]
Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.
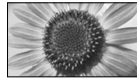
[Zoom3]
Displays a 2.35:1 letterbox (anamorphic) image full-screen without distortion. At 16:9, displays the image at its maximum (with slight enlargement).

(Note)

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

Watching TV

18

Using the Freeview Guide (Digital TV mode)

Using the Freeview Guide enables you to select a programme easily, view programme information, etc.
The 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 the 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

2		Wed 2 Apr
⇕	20:30	Lost
	21:30	Dirty Sexy Money
	22:30	The Knights Of Prosperity
	22:55	Entourage
	23:30	Reality Bites: Bodyshock - Half Ton...

TV ONE, 20:00

Sayid confronts Ben's spy on the freighter, and Ben urges daughter Alex to flee Locke's camp in order to survive an impending attack.
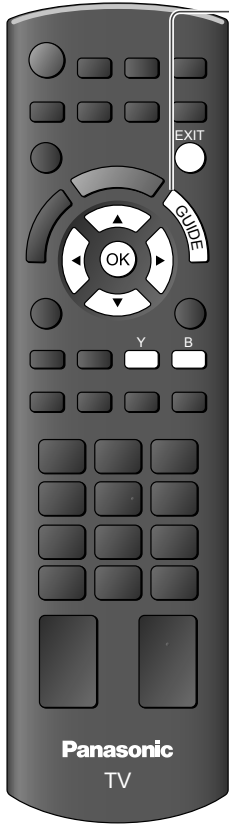
⇕ Prog ◄► Chnl   ■ Next Week ■ Next Day
OK Watch TV   EPG/Guide Now/Next

Current channel's programme listing

Description

Parental rating & captioning information

Example: What's on Now / Next

Current time & date

What's on now/next.   20:00 Wed 2 Apr

⇕	2	TV2	Now	20:30	Lost
			Next	21:30	Dirty Sexy Money
	3	TV3	Now	20:30	Criminal Intent
			Next	21:30	Law & Order
	4	C4	Now	20:30	Celebrity Joker Poker
			Next	21:30	It's Always Sunny In Philadelp...
	5	Māori Television	Now	20:30	NZ Doco: Children of the Revol...
			Next	21:30	Te Tepu
	6	TVNZ6	Now	20:30	Talk Talk
			Next	21:30	The Gravy

⇕ Chnl
OK Watch TV   EPG/Guide Listings

Channel listing

■ To the previous day ➡ Y

■ To the next day ➡ B

■ To scroll through programme or channel
➡ ① programme
   ② channel
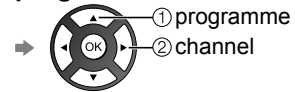
■ To scroll through channels
➡ select
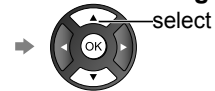
■ To watch the highlighted programme
➡

■ To return to the Freeview Guide Listings
➡ GUIDE

■ To return to TV
EXIT

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.
- The Freeview Guide screen and operations are subject to change without notice.

19

Viewing Teletext

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

What is FASTEXT mode?

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

What is List mode?

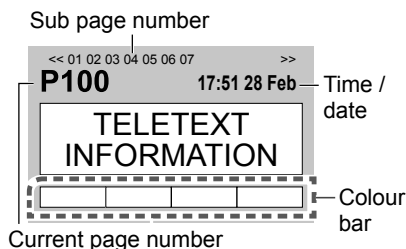In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages" ⇒ p. 21)

■ To change mode ⇒ [Teletext] in the Setup Menu (p. 29)

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

Sub page number
<< 01 02 03 04 05 06 07   >>
P100   **17:51 28 Feb** — Time / date

TELETEXT
INFORMATION

Colour bar

Current page number

2 Select the page

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

or

OK — up / down

or

CH ∧∨

or

R G Y B
(Corresponds to the colour bar)

■ To adjust contrast

MENU (press three times) ⇒ OK   As the blue bar is displayed

■ To return to TV — TEXT or EXIT

Functions (Teletext mode)

HOLD	Reveal hidden data
HOLD **Stop automatic updating** (If you wish to hold the current page without updating) ■ To resume HOLD	MENU ⇒ R **Reveal hidden words** e.g. quiz page answers ■ To hide R

INDEX	Call up a favourite page
INDEX **Return to the main index page**	STTL **View a favourite page stored** ● Call up the page stored on the blue button (List mode). ● Factory setting is "P103" for Digital teletext, "P801" for Analogue teletext.

20

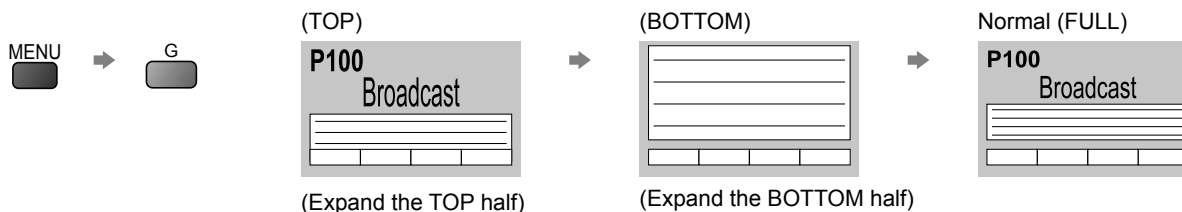7/3/2012   6:47:38 PM

View in multi window

Watch TV and Teletext in two windows at once

MENU (press twice) ➡ [OK navigation] Select Picture and text On or Off

● Operations can be made only in Teletext screen.

FULL / TOP / BOTTOM

MENU ➡ G

(TOP)

P100

Broadcast

(Expand the TOP half)

➡

(BOTTOM)

(Expand the BOTTOM half)

➡

Normal (FULL)

P100

Broadcast

Store frequently viewed pages

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

Corresponding colour button
(As page is displayed)

➡ [OK navigation] press and hold

P100

Broadcast

| 101 | 200 | 400 | 888 |

— The number changes to white.

■ To change stored pages

Coloured button
you want to change

➡ [1] [2abc] [3def] [4ghi] [5jkl] [6mno] [7pqrs] [8tuv] [9wxyz] [0] Enter new page number

➡ [OK navigation] press and hold

View sub page

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

[OK navigation] `<<01 02 03 04 05` —— Appears at top of the screen

■ To view specific sub page

MENU ➡ B

T****

Broadcast

➡ Enter the 4-digit number example : P6
[0] [0] [0] [6mno]

T0006

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

Watch TV while waiting for update

View the TV picture while searching for a teletext page

Teletext automatically updates itself when new information becomes available.

MENU ➡ Y ➡ P108 —— Appears when updating is completed ➡ Y View the updated page

Changes to TV screen temporarily (You cannot change the programme.)
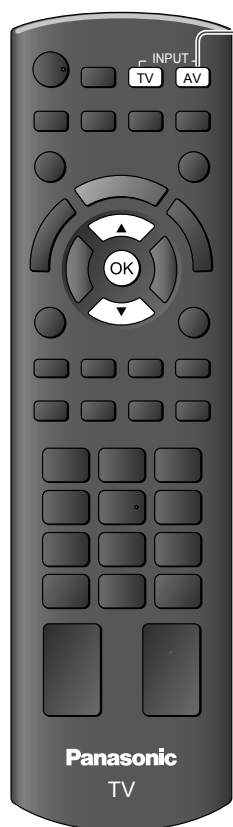
● The news page provides a function that indicates arrival of latest news ("News Flash").

21

Watching External Inputs

Connect the external equipment (VCRs, DVD equipment, PC, etc.) and you can watch through the input.
● To connect the equipment ➡ **(p. 12 - 13, 50 - 51)**
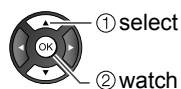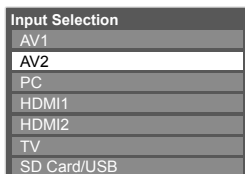
1 Display the input selection menu

2 Select the input mode connected to the equipment

Example (AV2)

Input Selection
AV1
AV2
PC
HDMI1
HDMI2
TV
SD Card/USB

① select
② watch

Example (PC)

Input Selection
AV1
AV2
PC
HDMI1
HDMI2
TV
SD Card/USB
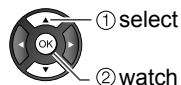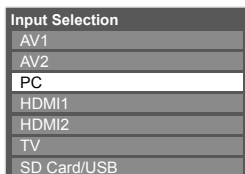
① select
② watch

● You can also select the input using the AV button on the remote control or the TV (p. 10).
   Press the button repeatedly until the desired input is selected.
● You can label or skip each input mode ➡ **[Input Labels] (p. 35)**
   Skipped inputs will not be displayed when the AV button is pressed.

3 View

Example (AV2)

**AV2
16:9**
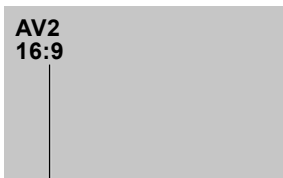
Displays the selected mode

● If the external equipment has an aspect adjustment function, set to [16:9].

Example (PC)

**PC
640X480 / 60Hz
16:9**
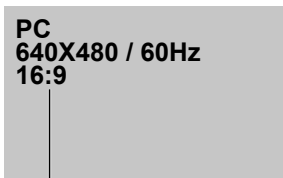
Displays the selected mode

● You can also listen to PC sound with the audio cable connected.
   To connect ➡ (p. 51)
● You can setup some functions
   ➡ PC Setup (p. 28) in the Setup Menu.
● For HDMI-compatible PC, possible to connect to HDMI terminals (HDMI1 / HDMI2) by using HDMI cable (p. 53).

INPUT
TV AV

OK

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TV

■ **To return to TV**
TV

22

How to Use VIERA TOOLS

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

1 **Display icons of the feature**

2 **Select a feature**

(example)
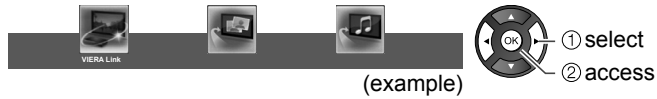
① select
② access

3 **Follow the operations of each feature**

[VIERA Link] ➡ "VIERA Link Control" (p. 47)

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

[Photo]* ➡ **"Photo mode" (p. 40)**

[Music]* ➡ **"Music mode" (p. 43)**

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

■ **To return to TV**
EXIT   or   VIERA TOOLS

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TV

<div style="text-align: right">*How to Use VIERA TOOLS*</div>

Note
● If the selected feature is not available, the demonstration to explain how to use it can be displayed. Press the OK button to view the demonstration after selecting the unavailable feature.

23

How to Use the 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

VIEᴙᴀ Main Menu
- ▭ **Picture**
- ♪ **Sound**
- ✎ **Setup**

① select
② access

3 Select the item

select

4 Adjust or select

① change
② store or access
   (Required by some functions)

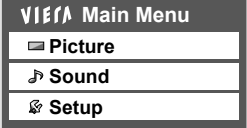### ■ To return to TV at any time
EXIT

■ To return to the previous screen
RETURN

■ To change menu pages
CH — up
CH — down
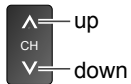
■ Choose from among alternatives
Number and positions of alternatives

Colour Balance	◄ Normal ►

Changed
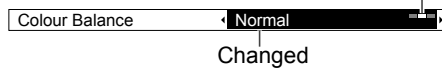
■ Adjust using the slide bar

Sharpness	◄ 56 ►

Moved

■ Go to the next screen

Child Lock	Access
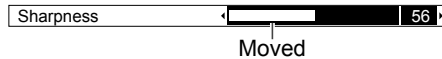
Displays the next screen
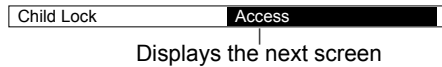
■ Enter characters by free input menu
You can enter names or numbers freely for some items.

User input
Name
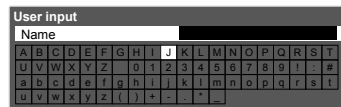
Set characters one by one
① select
② set

● To delete a character ➡ R
● To delete all characters ➡ B

● You can set characters by using numeric buttons.

RETURN
Store

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

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

■ To reset the settings
● To reset the picture settings only
 ➡ **[Reset Picture Defaults] in the Picture Menu (p. 26)**
● To reset the sound settings only
 ➡ **[Reset Sound Defaults] in the Sound Menu (p. 27)**
● To initialise all settings
 ➡ **[Shipping Condition] in the Setup Menu (p. 36)**

Panasonic
TV

24

Menu list
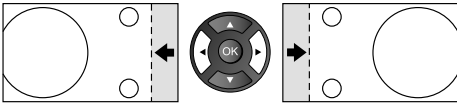
Menu	Item	Adjustments / Configurations (alternatives)
Picture	**Viewing Mode** • Dynamic • Normal • Cinema • True Cinema • Game	Basic picture mode In each Viewing Mode and input, [Backlight], [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Balance], [Vivid Colour], [Eco Mode], [P-NR] and [3D-COMB] can be adjusted and stored to suit your particular viewing requirement. **[Dynamic]:** Provides enhanced picture contrast and sharpness when viewing in a bright room. **[Normal]:** Recommended for viewing under normal ambient room lighting conditions. **[Cinema]:** For watching movies in a darkened room with improving the performance of contrast, black and colour reproduction **[True Cinema]:** Precisely reproduces the original quality of the image without any revision. **[Game]:** Fast response signal specifically to provide suitable images for playing games ● Not valid on TV mode ● A continuous record of time spent using Game mode can be displayed in the top right of the screen. ➡ [Playing Time Display] (p. 29)
	Backlight	Increases or decreases the levels of these options according to your personal preference
	Contrast	
	Brightness	
	Colour	
	Sharpness	
	Tint	The picture hue can be adjusted to suit your taste ● For NTSC signal, Component or HDMI input
	Colour Balance • Cool • Normal • Warm	Allows you to set the overall colour tone of the picture ● Not valid when [Viewing Mode] is set to [True Cinema].
	Vivid Colour • Off • On	Automatically adjusts colours to vivid ones ● Not valid on PC signal.
	Eco Mode • Off • On	Automatically adjusts the screen brightness appropriately as the surrounding light level lowers to reduce the power consumption ● Not available in Shop mode (Dynamic picture mode)
	P-NR • Off • Min • Mid • Max	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture ● Not valid on PC signal.
	3D-COMB • Off • On	Makes still or slow moving pictures look more vivid ● Occasionally, while viewing still or slow moving pictures, colour patterning may be seen. Set to [On] to display sharper and more accurate colours. ● For PAL or NTSC signal reception only ● Not valid on Component, PC, HDMI and Media Player
	Screen Display • Off • On	Turns the screen off when you select [Off] ● The sound is active even if the screen turns off. ● Press any buttons (except Standby) to turn the screen on. ● This function is effective in reducing power consumption when listening to the sound without watching the TV screen.

25

Menu	Item			Adjustments / Configurations (alternatives)
Picture	Advanced Settings	White Balance*[1]	R-Gain	Adjusts the white balance of bright red area
			G-Gain	Adjusts the white balance of bright green area
			B-Gain	Adjusts the white balance of bright blue area
			R-Cutoff	Adjusts the white balance of dark red area
			G-Cutoff	Adjusts the white balance of dark green area
			B-Cutoff	Adjusts the white balance of dark blue area
			Reset White Balance	Press the OK button to reset to the default White Balance
		Gamma*[1]	**Gamma** • 1.8 / 2.0 / 2.2 / 2.4 / 2.6	Switches the gamma curve ● Please note the numerical values are reference for the adjustment.
			Reset Gamma	Press the OK button to reset to the default Gamma
		16:9 Overscan • Off • On		**[On] :** Default - Image is overscanned by ~5% beyond the edge of the screen to hide edge video noise **[Off] :** Displays image in its original size including edge video noise such as lines, dashes, dots etc. ● Applicable for video signals when TV aspect is set to [16:9] ● Memorised separately for SD and HD channels / signals
		DVI Input Setting • Normal • Full		Changes the black level in the image for HDMI input mode with DVI input signal manually ● When the DVI input signal from the external equipment, especially from PC, is displayed, the black level may not be suitable. In this case, select [Full]. ● The black level for HDMI input signal will be adjusted automatically. ● For HDMI input mode with DVI input signal only.
	Reset Picture Defaults			Press the OK button to reset settings of Picture Viewing Mode to the default.
Sound	**Mode** • Music • Speech • User			Selects basic sound mode ● The selected mode affects all input signals. **[Music]:** Improves sound quality for watching music videos, etc. **[Speech]:** Improves sound quality for watching news, drama, etc. ● In Music and Speech modes, you can adjust [Bass] and [Treble] settings, and those settings will be stored for each mode. **[User]:** Adjusts the sounds manually by using the equaliser to suit your favourite sound quality. ● For the User mode, [Equaliser] will appear on the Sound Menu instead of [Bass] and [Treble]. Select the [Equaliser] and adjust the frequency. ➡ [Equaliser] (below)
	Bass			Increases or decreases level to enhance or minimise lower, deeper sound output
	Treble			Increases or decreases level to enhance or minimise sharper, higher sound output
	Equaliser			Adjusts the frequency level to suit your favourite sound quality ● This function is available when [Mode] is set to [User]. ● Select the frequency and change the frequency level by using the cursor button. ● If you want to enhance the bass sound, raise the level of the lower frequency. If you want to enhance the treble sound, raise the level of the higher frequency. ● To reset the levels of each frequency to the default settings, select the [Reset Equaliser Settings] by using the cursor button, and then press the OK button.
	Balance			Adjusts the volume level of right and left speakers
	Surround • Off • V-Audio • V-Audio Surround			Surround sound settings **[V-Audio]:** Provides a dynamic enhancer of width to simulate improved spatial effects **[V-Audio Surround]:** Provides a dynamic enhancer of width and depth to simulate improved spatial effects ● Switching is also possible by the Surround button on the remote control (p. 9).

26

Menu	Item	Adjustments / Configurations (alternatives)
Sound	**Auto Gain Control** • Off • On	Adjusts the current volume level if it is extremely different from the previous viewed channel or input mode
	Volume Correction	Adjusts the volume of an individual channel or input mode
	Speaker Distance to Wall • Over 30cm • Up to 30cm	Adjusts the low frequency sound ● 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 • English / Maori / French / German / Italian/ Spanish / Korean / Chinese-Mandarin / Chinese-Cantonese / Japanese / Hindi	Selects the preferred language for Digital TV multi audio (depending on the broadcaster)
	MPX • Stereo • Mono • M1 • M2	Selects multiplex sound mode (if available) **[Stereo]:** Use this normally **[Mono]:** When stereo signal cannot be received **[M1]** / **[M2]:** Available while mono signal is transmitted ● Analogue TV mode only
	Digital Audio Preference • Dolby D • HE-AAC	Selects the initial setting for audio tracks **[Dolby D]:** The priority is given in the following order - Dolby Digital, HE-AAC, MPEG1. **[HE-AAC]:** The priority is given in the following order - HE-AAC, MPEG1, Dolby Digital. ● Dolby Digital is the method 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. ● MPEG1/Layer-2 is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality. ● Digital TV mode only
	SPDIF Selection • Auto • PCM	SPDIF: A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **[Auto]:** Dolby Digital is output as Dolby Digital Bitstream. HE-AAC and MPEG are output as PCM. **[PCM]:** Digital output signal is fixed to PCM.
	PCM Optical Level • -12 / -10 / -8 / -6 / -4 / -2 / 0 (dB)	Adjusts the audio level of PCM output from DIGITAL AUDIO OUT terminal as the initial setting ● Normally, PCM sound is larger comparing with the other types of audio track. ● Digital TV mode only
	HDMI1 / 2 Input • Digital • Analogue	Selects to fit the input signal (p. 53) **[Digital]:** HDMI cable connection **[Analogue]:** HDMI-DVI adaptor cable connection ● HDMI input mode only
	Audio Description • Off • Auto	Useful for visually-impaired viewers Set to [Auto] to activate the description sound track if available ● The availability of audio description sound track is indicated by [AD] in the information banner (p. 16). ● Digital TV mode only
	Reset Sound Defaults	Press the OK button to reset settings of the present [Mode], [Balance] and [Surround] in the Sound Menu to the default

How to Use the Menu Functions

27

Menu	Item	Adjustments / Configurations (alternatives)
Setup — PC Setup	**Input Resolution**	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels, 1,366 × 768 pixels) ● Options change depending on signals
	Clock	Sets 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 • H & V • SOG	PC sync signal type **[H & V]:** by the horizontal and vertical signals from your PC **[SOG]:** Sync on Green sync from your PC
	Reset PC Settings	Press the OK button to reset the PC Setup settings to the default.
DVI Position Settings	**H-pos**	Adjusts horizontal position settings of DVI
	V-pos	Adjusts vertical position settings of DVI
	Reset DVI Position Settings	Press the OK button to reset the DVI Position Settings to the default.
	Off Timer • Off • 15 / 30 / 45 / 60 / 75 / 90 minutes	Sets the time until the TV automatically goes to Standby mode

	Eco Navigation	Automatically sets the TV to the most suitable energy-saving mode
		● If you press the OK button, the following items are set as below:
		  [Eco Mode], [VIERA Link], [Power off Link], [Standby Power Save], [Power Save] ➡ [On]
		  [Intelligent Auto Standby] ➡ [On (No reminder)]
		  [Auto Standby] ➡ [2 hours]

	Child Lock	Locks a channel / AV input to prevent access to it (p. 34)
Tuning Menu	**Favourites Edit**	Creates lists of favourite channels (Digital TV mode) (p. 30)
	Channel List	Skips the unwanted channels or edits channels (p. 31, 32)
	Auto Tuning	Sets all Digital TV or Analogue TV channels automatically (p. 31, 33)
	Manual Tuning	Sets the TV channels manually (p. 32, 33)
	Update Channel List	Updates the channel list while keeping your settings (Digital TV mode) (p. 32)
	Signal Condition	Checks the Digital TV signal condition (p. 32)
	Add TV Signal	Adds the TV mode ● This function is available if you skip any modes to tune in [Auto Tuning] for first using the TV. ● To operate, refer to the [Auto Tuning] operations for first using the TV (p. 14).

28

Menu		Item	Adjustments / Configurations (alternatives)
Setup	Display Settings	**Teletext** • FASTEXT • List	Teletext display mode (p. 20)
		Preferred Subtitles • English / Maori / French / German / Italian/ Spanish / Korean / Chinese-Mandarin / Chinese-Cantonese / Japanese / Hindi	Selects the preferred language for Digital TV subtitles (depending on the broadcaster)
		Input Labels	Labels or skips each input terminal (p. 35)
		Banner Display Timeout • 0 (No display) • 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds	Sets how long the information banner stays on screen (p. 16)
		Playing Time Display • Off • On	Sets to [On] to display a continuous record of time spent using Game mode every 30 minutes ● This function is available when [Game] is selected in [Viewing Mode] (p. 25).
	VIERA Link Settings	**VIERA Link** • Off • On	Sets to use VIERA Link functions ● VIERA Link functions become available when [VIERA Link] is set to [On] (p. 45).
		Power on Link • Off • On	Sets to use Power on Link functions (p. 45)
		Power off Link • Off • On	Sets to use Power off Link functions (p. 45)
		Standby Power Save • Off • On	Controls the power consumption in Standby mode of the connected equipment to reduce the power consumption (p. 45) ● This function is available when [VIERA Link] is set to [On] and [Power off Link] is set to [On].
		Intelligent Auto Standby • Off • On (With reminder) • On (No reminder)	Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption (p. 45) ● This function is available when [VIERA Link] is set to [On].
	System Menu	**Shipping Condition**	Resets all settings to the original condition (p. 36)
		System Update	Downloads new software to this TV (p. 37)
		Software Licence	Displays the software licence information
		System Information	Displays the system information of this TV
	Other Settings	**Auto Standby** • Off • 2 / 4 hours	Sets the time the TV automatically goes into Standby mode when no operation is performed for the selected times ● Automatic input switching with the connected equipment affects this function and time-count will be reset. ● The notification message will appear 3 minutes before going into Standby mode.
		Power Save • Off • On	Reduces brightness of the picture to economise on power consumption

● A different menu will be displayed in the mode of Media Player (p. 38 - 43)
● Only available items can be selected.
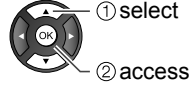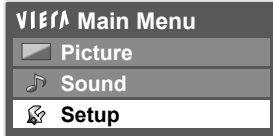*1 : PC input mode only

29

Tuning and Editing Channels

You can retune channels or make your favourite channel lists, skip unwanted channels, etc.
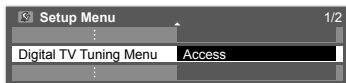
1 Select the mode
➡ **(p. 15)**

TV

2 Display the menu and select [Setup]

MENU

VIEʃʌ Main Menu
- 🖼 **Picture**
- 🎵 **Sound**
- 🔧 **Setup**

① select
② access

■ If you select Digital TV

3 Select [Digital TV Tuning Menu]

Setup Menu 1/2

Digital TV Tuning Menu	Access

① select
② access

4 Select a function

Digital TV Tuning Menu

Favourites Edit	Access
Channel List	Access
Auto Tuning	Access
Manual Tuning	Access
Update Channel List	Access
Signal Condition	Access
Add TV Signal	Access

① select
② access or set
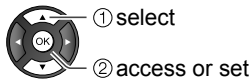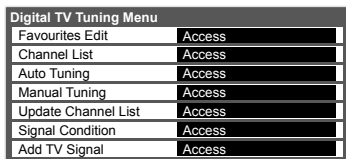
● For details ➡ (**p. 30 - 32**)

■ If you select Analogue TV

3 Select [Analogue TV Tuning Menu]

Setup Menu 1/2

Analogue TV Tuning Menu	Access

① select
② access

4 Select a function

Analogue TV Tuning Menu

Channel List	Access
Auto Tuning	Access
Manual Tuning	Access
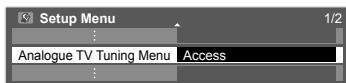
① select
② access
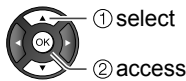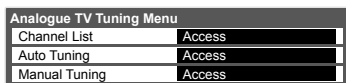
● For details ➡ (**p. 32 - 33**)

Digital TV Tuning Menu

[Favourites Edit] - List favourite channels

Create your favourite channel lists (Favourites) from various broadcasters (up to 4: [Favourites]1 to 4).
The Favourites lists are available from the Information banner (p. 16).

1 Select a channel to list

Digital TV Favourites Editor

Channels	Favourites1
1 TEN Digital	
ABC TV S...	
3 SBS DIGITAL1	
4 FTV guide	
7 7 Digital	
9 NINE DIGITAL	
70 7 HD Digital	
77 7 Guide	
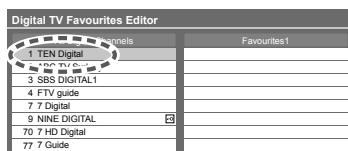
select

2 Add it to the Favourites list

Digital TV Favourites Editor

All Digital Channels	
1 TEN Digital	1 TEN Digital
2 ABC TV Sydney	
3 SBS DIGITAL1	
4 FTV guide	
7 7 Digital	
9 NINE DIGITAL	
70 7 HD Digital	
77 7 Guide	
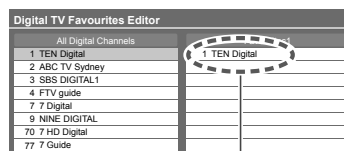
A channel is added

3 Store

RETURN ➡

● To display other Favourites [G]

● To add all channels to the list [Y]

30

■ **To edit list**

 Select the field of Favourites to edit and:

● To name the Favourites

 ➡
```
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)

① select
② set

Store RETURN

You can set characters by using numeric buttons (p. 24).

● To move the channel

 ➡ Select the new position or ➡ Confirm

● To delete the channel

● To delete all channels

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

[Channel List] - Skip unwanted channels, Edit Channels

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

Select a channel and reveal / hide

```
Digital TV Channel List
☑  70   CBBC Channel
☑  72   Cartoon Nwk
☑  105  BBCi
☐  719  BBC Radio Wales
☐  720  BBC Radio Cymru
☐  1    BBC ONE Wales
☑  7    BBC THREE
```

① select
② [reveal] / [hide]

☑ : [reveal]
☐ : [hide] (skip)

● To reveal all channels

● To retune each channel (Manual Tuning)
 (p. 32)

■ **To swap the channel position**

You can also edit each channel in the Channel List.

1 Select a channel to edit

 or Channel position

```
1 BBC ONE WALES          23:35    All Digital Channels
Coronation Street                 Select favourites
23:00 - 23:55        ◄ Now ►
```

2 Swap the channel position

 ➡ Enter the new position number ➡ Store

[Auto Tuning] - Set all Digital TV channels automatically

1 Start Auto Tuning

```
Digital TV Auto Tuning

All digital TV tuning data will be erased
```


2 Settings are made automatically

```
Digital TV Auto Tuning
Scan                   CH21  [        ]  69
This will take about 3 minutes.
RF Ch   Channel Name        Type        Quality
62      CBBC Channel        Digital TV  10
62      BBC Radio Wales     Digital TV  10
62      E4                  Digital TV  10
62      Cartoon Nwk         Digital TV  10

Digital TV: 4    Radio: 0
                    Searching
```

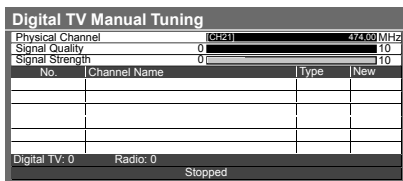Automatically retune all Digital TV channels received in the area.

● All the previous tuning settings are erased.
● When the operation is completed, the channel at channel position "1" will be displayed.
● Search begins in the order from the lower channels to the higher channels.
● If tuning has not been done completely ➡ **[Manual Tuning] (p. 32)**

31

[Manual Tuning] - Set Digital TV channel manually

Normally use [Auto Tuning] or [Update Channel List] to update Digital TV channels on your channel list. If tuning has not been done completely or for adjusting the direction of the aerial, use this function.
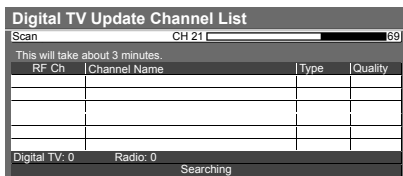
Digital TV Manual Tuning			
Physical Channel	[CH21]		474.00 MHz
Signal Quality	0		10
Signal Strength	0		10
No.	Channel Name	Type	New
Digital TV: 0	Radio: 0		
	Stopped		

① select physical channel
② select offset
③ start tuning
● All channels found will be added to the Digital TV Channel List.

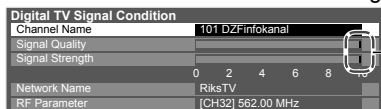## [Update Channel List] - Update channels automatically

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

Digital TV Update Channel List			
Scan	CH 21		69
This will take about 3 minutes.			
RF Ch	Channel Name	Type	Quality
Digital TV: 0	Radio: 0		
	Searching		

● Channel List is updated while keeping your settings in [Favourites Edit], [Channel List], [Child Lock], etc.
● Depending on the signal condition, the update may not work properly.

[Signal Condition] - Check Digital TV signal

Selects a channel and checks the Digital TV signal condition.

Digital TV Signal Condition	
Channel Name	101 DZFinfokanal
Signal Quality	
Signal Strength	
	0 2 4 6 8
Network Name	RiksTV
RF Parameter	[CH32] 562.00 MHz

These bars show the maximum signal value of the selected channel.

● To change the channel

∧ CH ∨

A good Signal Strength is not an indication of suitable signal for Digital TV reception. Please use the Signal Quality indicator as follows:
[Signal Quality]:
● Green bar ➡ Good
● Yellow bar ➡ Poor
● Red bar ➡ Bad (Check the aerial)

Analogue TV Tuning Menu

[Channel List] - Skip unwanted channels / Edit Channels (Change name, Move)

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

Select a channel and reveal / hide

Analogue TV Channel List		
☑	1	BBC1
☐	2	*****
☐	3	*****
☑	4	*****
☑	5	*****
☑	6	*****
☑	7	*****
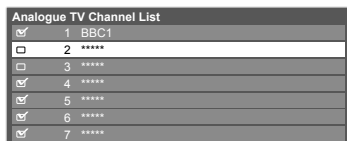
① select
② [reveal] / [hide]
☑ : [reveal]
☐ : [hide] (skip)

● To reveal all channels Y

● To retune each channel (Manual Tuning)
R (p. 33)

Tuning and Editing Channels

■ To edit channels

You can also edit each channel in the Channel List.

Select a channel to edit and:

or

∧ CH ∨

Channel position

Channel name

1 BBC	21:35	All Analogue Channels
CH 02		Prompt Street

- To move the channel position

G ➡ Select the new position OK ➡ Store G

- To rename the channel name

B ➡

Edit channel name
Name

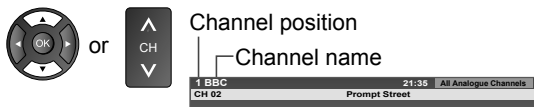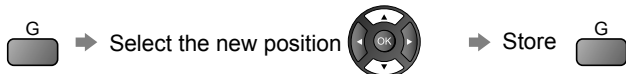| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
U	V	W	X	Y	Z		0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_							

(maximum: five characters)
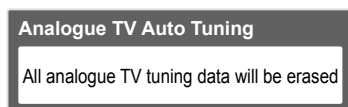
① select
② set

Set characters

➡ Store

RETURN

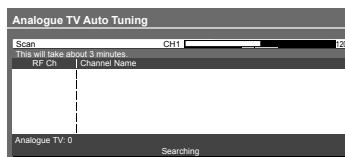- You can set characters by using numeric buttons (p. 24).

(**Note**)
- If a VCR is connected only with the RF cable, edit [VCR].

[Auto Tuning] - Set all Analogue TV channels automatically

1 Start Auto Tuning

Analogue TV Auto Tuning

All analogue TV tuning data will be erased

OK

2 Settings are made automatically

| Analogue TV Auto Tuning		
Scan	CH1	120
This will take about 3 minutes.		
RF Ch	Channel Name	
Analogue TV: 0		
	Searching	

Automatically retune all Analogue TV channels received in the area.

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

[Manual Tuning] - Set Analogue TV channel manually

Set Analogue TV channels manually after Auto Tuning.

Analogue TV Manual Tuning		
0		CH1
Manual Tuning 1		120
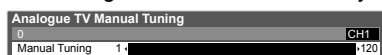
- If a VCR is connected only with the RF cable, select channel position [0].

1 Select a channel position

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

2 Select a channel

∧ CH ∨

3 Search and store

OK ① search
② store

Auto Tuning using the buttons on the TV

For Auto Tuning, using the buttons on the TV (p. 10)

1 Press the F button repeatedly until [Auto Tuning] appears
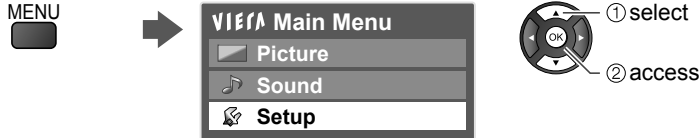
F

2 Access [Auto Tuning]

TV

3 Start [Auto Tuning]

TV

F
∧ +
∨ −
TV
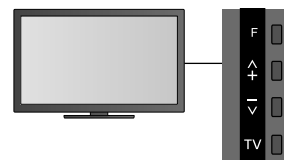
- To return to TV

F (Press twice)

Tuning and Editing Channels

33

Child Lock

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

1 Display the menu and select [Setup]

MENU

VIErA Main Menu
- Picture
- Sound
- **Setup**

① select
② access

2 Select [Child Lock]

Setup Menu 1/2

Child Lock   Access

① select
② access

[Child Lock] - Control channel audience

1 Enter the PIN number (4 digits)

Child Lock-PIN Entry
Please enter new PIN
PIN   * * * *

● "0000" has been stored as the default PIN number.

2 Select [Child Lock List] or [Parental Rating]

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

① select
② access

■ To set [Child Lock List]

Child Lock List - TV and AV

Name	Input	Type	Lock
1 BBC1	Digital TV	Digital TV	
2 *****	Digital TV	Digital TV	🔒
7 BBC THREE	Digital TV	Digital TV	🔒
14 E4	Digital TV	Digital TV	
101 BBC 1 Wales	Digital TV	Digital TV	🔒
AV1	External	AV	
AV2	External	AV	

🔒 : Appears when the channel / input is locked

① select
② lock

● To cancel ➡ **Select the locked channel / input**

● To lock all G

● To cancel all locks Y

● To jump to the top of the next input B

■ To set [Parental Rating]

Child Lock
Change PIN
Child Lock List
Parental Rating   ◄ No Block ►

set
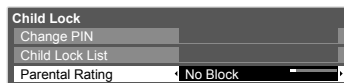
● Rating ➡ **(p. 52)**

■ To change the PIN number

1. Select [Change PIN] in [Child Lock]

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

① select
② access

2. Enter a new PIN number twice.
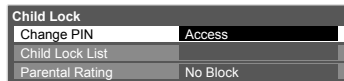
● Make a note of the PIN number in case you forget it.

[ ][ ][ ][ ]
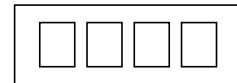
> **Note**
> ● Performing [Shipping Condition] (p. 36) erases the PIN number and all settings.
> ● If you have forgotten your changed PIN, input "6969" as the PIN number.
> ● Keep these Operating Instructions out of reach of children.

Child Lock *(side tab)*

Input Labels

For easier identification and selection of the input mode, you can label each input mode or skip terminals that are not connected to any equipment.
● To select the input mode ➡ **(p. 22)**

1 Display the menu and select [Setup]

MENU

VIErA Main Menu
- 🖼 **Picture**
- ♪ **Sound**
- 🎛 **Setup**

① select
② access
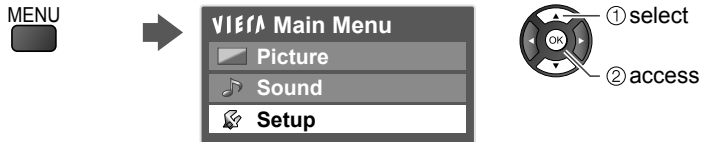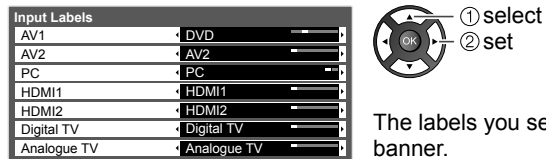
2 Select [Display Settings]

Setup Menu	1/2
Display Settings	Access

① select
② access

3 Select [Input Labels]

Display Settings	
Input Labels	Access

① select
② access

4 Select an input terminal and set

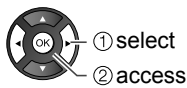| Input Labels	
AV1	DVD
AV2	AV2
PC	PC
HDMI1	HDMI1
HDMI2	HDMI2
Digital TV	Digital TV
Analogue TV	Analogue TV

① select
② set

The labels you set will be displayed in [Input Selection] menu (p. 22) or banner.
● If [Skip] is selected, you cannot select the mode.

■ User input

You can name each input mode freely.

1 Select [User input]

① select
② access

2 Set characters one by one

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	(	)	+	-	.	*	_							

① select
② set
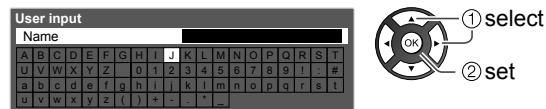
(maximum: ten characters)
● You can set characters by using numeric buttons.
  ➡ **(p. 24)**

3 Store

RETURN

Shipping Condition (Reset settings)

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

1 Display the menu and select [Setup]

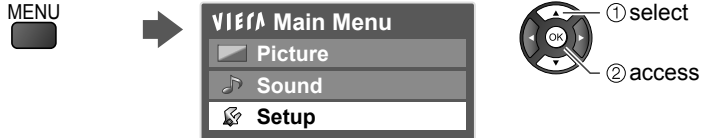MENU

VIErA Main Menu
- Picture
- Sound
- Setup

① select
② access

2 Select [System Menu]

Setup Menu 1/2

| System Menu | Access |

① select
② access

3 Select [Shipping Condition]

System Menu

| Shipping Condition | Access |

① select
② access

[Shipping Condition] - Restore Settings

1 Check the message and reset

Shipping Condition

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

Confirm — ● EXIT
● RETURN

(confirm)

↓

(confirm)

↓

(start
[Shipping Condition])
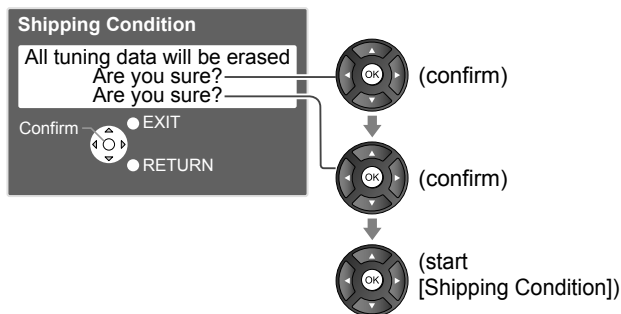
2 Follow the on screen instructions

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

● [Auto Tuning] will automatically start when Mains power On/Off switch is next turned on (p. 14).

■ **To retune TV channels only, e.g. after moving house**
➡ **[Auto Tuning] in "Tuning and Editing Channels" (p. 31, 33)**
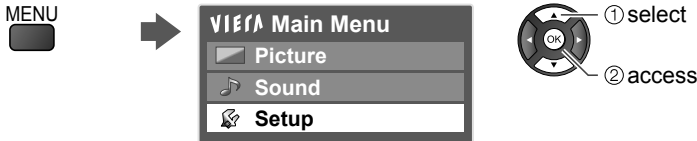
36

Updating the TV Software

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

● To download (OK) ● If you choose not to download (EXIT)

You can update any new software automatically or update manually.

1 Display the menu and select [Setup]

MENU →

VIERA Main Menu
- Picture
- Sound
- Setup

① select
② access

2 Select [System Menu]

Setup Menu 1/2
System Menu   Access

① select
② access

3 Select [System Update]

System Menu
System Update   Access

① select
② access

[System Update] - Update TV's software system

■ To update automatically

Select [Auto Update Search in Standby] and set the timing

System Update
Auto Update Search in Standby ◄ 1 hour after ►
System Update Search Now

① select
② set

● Every time you set, the TV automatically performs a search in standby and downloads an update, if any software updates are available.
● The automatic updating is performed under the following conditions:
  · Standby (TV turned Off with the remote control)
  · Direct TV Recording is not in progress.

> **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].**

■ To search for new software version

1 Select [System Update Search Now]

System Update
Auto Update Search in Standby   1 hour after
System Update Search Now   Access

① select
② start

2 Searches for an update (for several minutes) and displays a corresponding message if any

> **Note**
>
> ● Download may take about 60 minutes.
> ● During software download and update, DO NOT switch Off the TV or press any buttons. The TV will automatically be activated after downloading is completed.
> ● During downloading, the TV will display a blank screen for 40 to 50 seconds. Do not interrupt the TV during this procedure.
> ● The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.
> ● Software updates may be distributed in several ways; Automatic Update via the TV antenna or downloaded by you from the internet using your PC, copying the software image to your SD card or USB stick then updating TV software using the TV's USB port or TV's SD card slot. No other distribution method is available.

37

Using Media Player

Media Player allows you to enjoy photo or music recorded on an SD Card and a USB Flash Memory.
VIERA IMAGE VIEWER is the function of the easy viewing for photos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.

Photo mode: Still pictures recorded by digital cameras will be displayed.
Music mode: Digital music data will be played back.

When these functions are used, the audio signal is output from audio output terminals.
● [Date] shows the date on which the recording was made by the recording equipment. The file without record of the date is shown "**/**/****".
● The picture may not appear correctly on this TV depending on the recording equipment used.
● Display may take some time when there are many files and folders.
● Partly degraded files might be displayed at a reduced resolution.
● The folder and file names may be different depending on the digital camera used.

To insert or remove the SD Card / USB Flash Memory
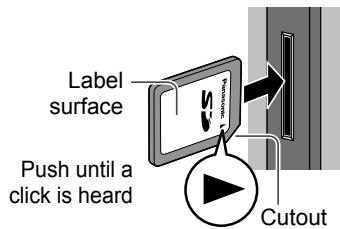
■ **USB Flash Memory**
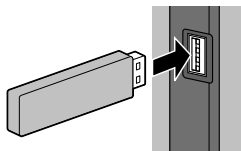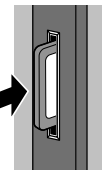
● Insert or remove straightly and completely.

■ **SD Card**

To insert the SD Card

Gently insert the SD Card label surface facing front.

Label surface

Push until a click is heard

Cutout

To remove the SD Card

Push the centre of the card

● For more information of the SD Card, USB Flash memory and supported file format ➡ **(p. 55)**

38

Starting Media Player

1 Insert the SD Card or USB Flash Memory
➡ **(p. 38)**
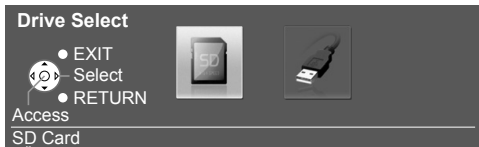When the SD Card is inserted, switching to Media Player will be done automatically.

2 Start Media Player

SD CARD
● You can also start by pressing following button.

AV ➡ **"Watching External Inputs" (p. 22)**
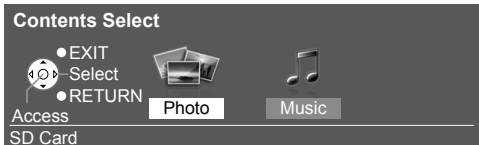
3 Select the device to access

Drive Select
● EXIT
Select
● RETURN
Access
SD Card

selected device name

① select
② access

● If only one device is connected, this step will be skipped.

4 Select the content

Contents Select
● EXIT
Select
● RETURN
Access
Photo   Music
SD Card

① select
② access

[Photo] ➡ **(p. 40)**
[Music] ➡ **(p. 43)**
● You can also access each mode directly by using VIERA TOOLS.
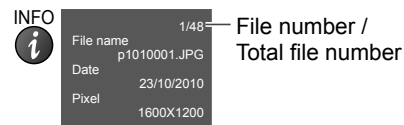➡ **"How to Use VIERA TOOLS" (p. 23)**

5 Enjoy Media Player

Example: Thumbnail - [All photos]

Media Player 📷 Photo   All photos

View ⬥ EXIT   ℹ Info   SD Card
Select ⬥ RETURN   Option Menu
☐ Slideshow   ☐ View Select   ☐ Drive Select   ☐ Contents Select

Selected Device Name

● To display the information of the highlighted content

INFO
ℹ

File name 1/48
           p1010001.JPG
Date
           23/10/2010
Pixel
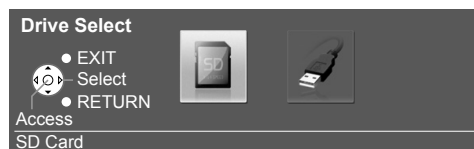   1600X1200

File number /
Total file number

Change the device

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

1 While the thumbnail is displayed, display the device selection

Y

2 Select the device to access

Drive Select
● EXIT
Select
● RETURN
Access
SD Card

selected device name

① select
② access

39

Change the contents

You can switch to the other mode of Media Player from the thumbnail view.

1 **While the thumbnail is displayed, display the contents selection**

B

2 **Select the contents**

Contents Select
- EXIT
- Select
- RETURN

Access
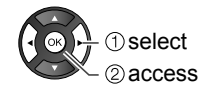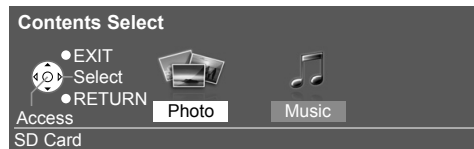SD Card
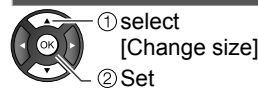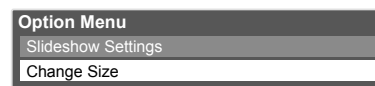
Photo   Music

① select
② access

Photo mode

Supported file format ➡ (p. 55)

The thumbnail of all the photos in the SD Card or USB Flash Memory will be displayed.

Example : Thumbnail - [All photos]

Media Player   Photo   All photos

View   EXIT   Info   SD Card
Select   RETURN   Option Menu
■ Slideshow   ■ View Select   ■ Drive Select   ■ Contents Select

🗔 : Error display

- To change the number of photos on a thumbnail screen at a time (7 × 4 ↔ 10 × 6)

OPTION ➡

Option Menu
Slideshow Settings
Change Size

① select [Change size]
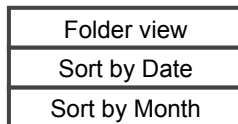② Set

Selected Device Name

- To change the background music ➡ **"Photo Setup" (p. 41)**

■ To sort by folder, recorded date or recorded month

1 **Display the view selection**

G

2 **Select the sort type**

| Folder view |
| Sort by Date |
| Sort by Month |

① select
② access

[Folder view]:
Displays the thumbnail grouped by folder
- The files which are not into a folder will be collected to the folder named "/".

[Sort by Date]:
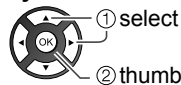Displays the thumbnail grouped by the same date
- The group of the photos without a recorded date is shown as [Unknown].

[Sort by Month]:
Displays the thumbnail grouped by the same month
- The group of the photos without a recorded date is shown as [Unknown].

3 **Select one of the sorted groups to display the thumbnail of the selected group**

Media Player   Photo   Sort by Date

23/10/2010   25/10/2010   01/11/2010   05/11/2010   10/11/2010   22/11/2010   23/11/2010
24/11/2010   01/12/2010   03/12/2010   20/12/2010   22/12/2010

Access   EXIT   Info   SD Card
Select   RETURN   Option Menu
■ Slideshow   ■ View Select   ■ Drive Select   ■ Contents Select

① select
② thumbnail of the selected group

- To return to the thumbnail of all photos

G ➡ ① select [All photos]
② access

- To display the information of the highlighted group

INFO

Folder name   1/12
   23/10/2010
Number of files   3
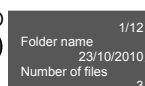
Group number / Total group number

Folder name, date or month

40

[Single view] - Photos are displayed one at a time.

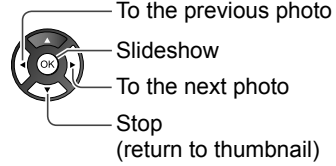Select the file from the thumbnail of photos to be viewed

① select

② access

Example :

Single view

II/▶ ●EXIT
Select
●RETURN
Stop

Rotate

Operation guide

● To display / hide the operation guide

INFO
ⓘ

● To return to thumbnail

RETURN
↩

● To operate Single view

To the previous photo

Slideshow

To the next photo

Stop
(return to thumbnail)

● To rotate 90°

B

[Slideshow] - Slideshow will complete when all photos have been viewed within the present thumbnail.

1 Select the file from the thumbnail of photos for the first view

select

2 Start Slideshow

R

➡

OK

● To display / hide the operation guide

INFO
ⓘ

● To pause (return to Single view)

OK

● To return to thumbnail

RETURN
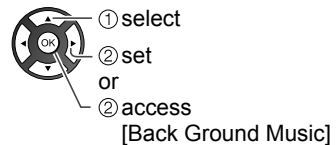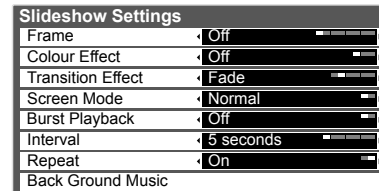↩

Photo Setup

Setup the settings for Photo mode.

1 Display the option menu

OPTION

2 Select [Slideshow Settings]

Option Menu

| Slideshow Settings |
| Change Size |

access
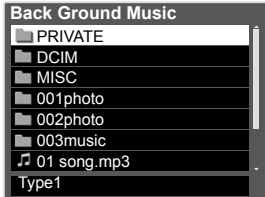
3 Select the items and set

Slideshow Settings

Frame	◄ Off ▬▬▭▭ ►
Colour Effect	◄ Off ▬▬ ►
Transition Effect	◄ Fade ▬▬▬▭ ►
Screen Mode	◄ Normal ►
Burst Playback	◄ Off ▬ ►
Interval	◄ 5 seconds ▬▬▭ ►
Repeat	◄ On ▬▬▬ ►
Back Ground Music	

① select

② set
or
② access
[Back Ground Music]
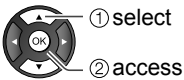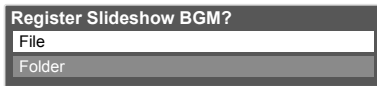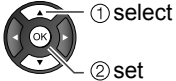
> **Note**
> ● Picture quality may become lower depending on the slideshow settings.
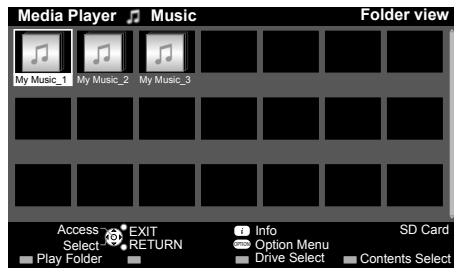> ● Picture setting may not work depending on the slideshow settings.

Using Media Player

41

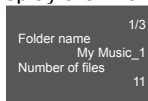| Item	Adjustments / Configurations (alternatives)
Frame	Selects the indication frame of the slideshow **[Off] / [Multi] / [Collage] / [Drift (+ calendar)] / [Drift] / [Gallery (+ calendar)] / [Gallery] / [Cinema]** **[Multi]:** 9 division display like tiled design **[Collage]:** A photo is displayed at a random position and at a random scale. **[Drift (+ calendar) / Drift]:** Photos are displayed like flow images. ● You can select to display the calendar or not. To change the month of the calendar, press the left or right cursor button while viewing the slideshow. **[Gallery (+ calendar) / Gallery]:** The various sizes of photos in the frame are displayed. ● You can select to display the calendar or not. To change the month of the calendar, press the left or right cursor button while viewing the slideshow. **[Cinema]:** Photos are displayed like old films (sepia tone)
Colour Effect	Selects the colour effect of photos on Single view and Slideshow **[Off] / [Sepia] / [Gray scale]** ● This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema].
Transition Effect	Selects the transition effect for switching the photo during the slideshow **[Off] / [Fade] / [Slide] / [Dissolve] / [Motion] / [Random]** **[Fade]:** The next photo fades in gradually. **[Slide]:** The next photo slides and appears from the left side. **[Dissolve]:** The photo is replaced by an indefinite block unit. **[Motion]:** The photo is replaced with enlarged, reduced, moved up or moved down. **[Random]:** Each transition is selected at random. ● This function is available when [Frame] is set to [Off].
Screen Mode	Selects enlarged or normal viewing on Single view and Slideshow **[Normal] / [Zoom]** ● This function is not available when [Frame] is set to [Collage], [Drift], [Gallery] or [Cinema]. ● This function is not available when [Transition Effect] is set to [Motion]. ● Depending on the photo size, the photo may not be enlarged.
Burst Playback	Selects whether the continuous shots are displayed in rapid interval during the slideshow **[Off] / [On]** ● This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema]. ● This function is not available when [Transition Effect] is set to [Motion].
Interval	Selects slideshow interval **[5] / [10] / [15] / [30] / [60] / [90] / [120] (seconds)** ● This function is not available when [Transition Effect] is set to [Motion].
Repeat	Slideshow repeat **[Off] / [On]**
Back Ground Music	Selects the background music during Photo mode **[Off] / [Type1] / [Type2] / [Type3] / [User] / [Auto]** ● [Type1], [Type2] and [Type3] are the fixed music each installed in this TV. **[User]:** Music data in the current device registered by yourself will be played back. **To register the music** 1 Select the music file Depending on the conditions of the current device, select folders until you reach the desired music file. **Back Ground Music** 📁 PRIVATE 📁 DCIM 📁 MISC 📁 001photo 📁 002photo 📁 003music 🎵 01 song.mp3 Type1 ① select ② access 2 Select [File] or [Folder] **Register Slideshow BGM?** File Folder ① select ② set [File]: The selected music file will be registered as background music. [Folder]: All the music in the folder which contains the selected music file will be registered as background music. ● If no music has been registered or the registered music device is removed, no sound will be produced. **[Auto]:** Music data stored in the root folder of the current device will be played back randomly. ● If there is no available music data, no sound will be produced.

42

Music mode

Supported file format → (p. 55)

The thumbnail of music folders in the SD Card or USB Flash Memory will be displayed.
Example : Thumbnail - [Folder view]

Media Player ♫ Music	Folder view
My Music_1 My Music_2 My Music_3	

```
Access       EXIT          Info              SD Card
Select       RETURN        Option Menu
Play Folder                Drive Select      Contents Select
```

- To display the information of the highlighted folder
  INFO
  ⓘ

  ```
                    1/3    — Folder number / Total folder number
  Folder name
              My Music_1
  Number of files
                    11
  ```

■ Playback from Folder view

All the files in the selected folder will be played back.

1 Select the folder

select

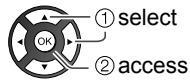**2 Start playback**

R

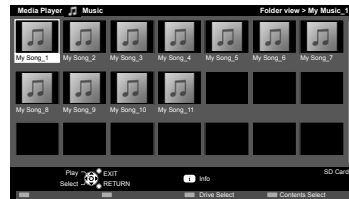### ■ Playback from File view

Selected file will be played back.

1 Select the folder

① select

② access

2 Select the file

Media Player ♫ Music	Folder view > My Music_1
My Song_1 My Song_2 My Song_3 My Song_4 My Song_5 My Song_6 My Song_7	
My Song_8 My Song_9 My Song_10 My Song_11	SD Card

```
Play         EXIT          Info
Select       RETURN
                           Drive Select     Contents Select
```

select

3 Start playback

R

To display the information of the highlighted title
INFO
ⓘ

```
                    1/11   — File number /
Title                         Total file number
              My Song_1
Album
              My Music_1
Artist
              My Favorite
Track No.
                    1
Duration
              00h03m29s
```

■ How to operate playback

```
♫ My Song_9
∅ My Favourite
≗ My Music_1
1♫          00:02.43 / 00:05.44
▶

◀▶ EXIT
◀▶ RETURN
```

Operation guide

- To display / hide the operation guide   INFO ⓘ
- To operate playback

  ◀◀ Rewind
  ▌▌/▶ Pause / Playback
  ▶▶ Fast forward
  ■ Stop
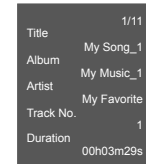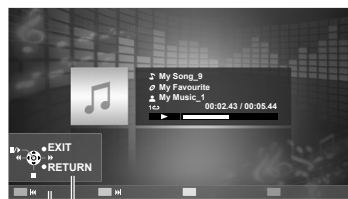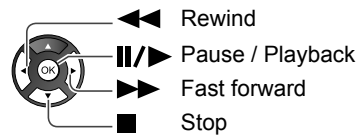
- To the previous track   R
- To the next track   G
- To return to thumbnail   RETURN ↩

Music Setup

Setup the setting for Music mode.

1 Display the option menu

OPTION

2 Select [Music Setup]

Option Menu
Music Setup

access

3 Set

Music Setup Menu
Repeat   One
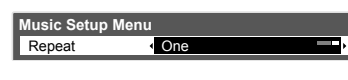
set

[Folder]: Playback repeat within the selected folder
[One]: Playback repeat of the selected one file

Using Media Player

43

VIERA Link Functions

VIERA Link "HDAVI Control™"

Enjoy additional HDMI interoperability with Panasonic products which have "HDAVI Control" function.
This TV supports "HDAVI Control 5" function.
Connections to equipment with HDMI cable such as a DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc., allow you to interface to them automatically.
These features are limited to models incorporating "HDAVI Control" and "VIERA Link".
● Some functions are not available depending on the equipment's version of HDAVI Control. Please confirm the connected equipment's version of HDAVI Control.
● VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
● Please refer to individual manuals for the external equipment. About applicable Panasonic equipment, consult your local Panasonic dealer.

Summary of features

Features / Connected equipment with VIERA Link function	DIGA Recorder*1	DVD Player / Blu-ray Disc Player*1	HD Video Camera / LUMIX Camera*1	Player theatre*2	Blu-ray Disc theatre*2	Amplifier*2
Channel download	○*4	–	–	–	–	–
Easy playback	○	○	○	○*7	○*7	–
Power on link	○	○	○	○	○	–
Power off link	○	○	○	○	○	○
Reduce unnecessary power consumption in standby	○*5	○*5	–	–	○*5	–
Auto standby for unnecessary equipment	○*3	○*3	–	○*3*8	○*3*8	○*3
Pause Live TV programme	○*4 *6	–	–	–	–	–
Direct TV Recording	○*4	–	–	–	–	–
Control the menu of the connected equipment by VIERA remote control	○*3	○*3	○*3	○*3	○*3	–
Speaker control	–	–	–	○	○	○

*1: HDMI Connection only
*2: HDMI and Audio out connections
*3: available with equipment which has "HDAVI Control 2 or later" function
*4: available with equipment which has "HDAVI Control 3 or later" function

*5: available with the equipment which has "HDAVI Control 4 or later" function
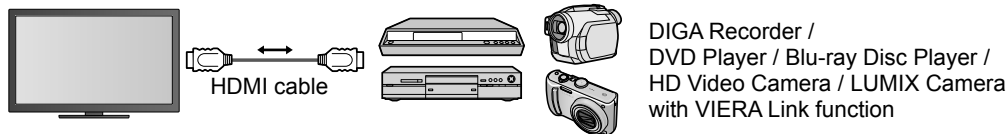*6: available with DIGA Recorder which has HDD
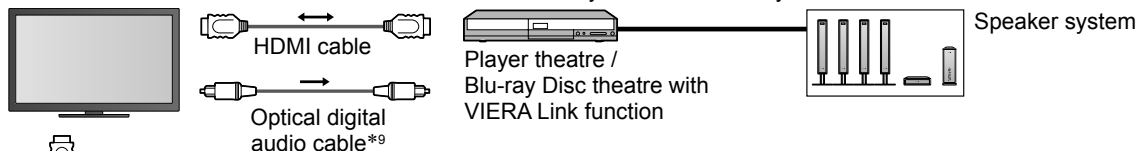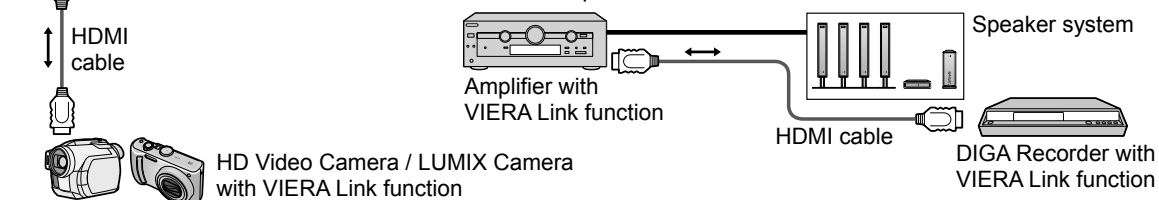*7: while playing a disc
*8: except for watching a disc

Connection

● To use DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera:

HDMI cable

DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function

HDMI cable

Optical digital audio cable*9

HDMI cable

HD Video Camera / LUMIX Camera with VIERA Link function

● To use Player theatre / Blu-ray Disc theatre:

Speaker system

Player theatre / Blu-ray Disc theatre with VIERA Link function

● To use Amplifier:

Speaker system

Amplifier with VIERA Link function

HDMI cable

DIGA Recorder with VIERA Link function

*9: If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.

44

Note

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

Preparations

● Connect the equipment supporting VIERA Link.
● Set up the connected equipment. Read the manual of the equipment.
● For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
● Set [VIERA Link] [On] in the Setup Menu ➠ **[VIERA Link] (p. 29)**
● Set up the TV
   ➠ **After connection, turn the equipment on and then switch the TV on.**
      Select the input mode to HDMI1 or HDMI2 (p. 22), and make sure that an image is displayed correctly.
   This setup should be done each time when the following conditions occur:
   ・ for the first time　　　　　　・ when adding or reconnecting equipment　　　　　　・ when changing setup

Features available

Channel download

Channel settings can be downloaded to the recorder.

Easy playback

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

[Power on link]

Set Power on Link [On] in the Setup Menu to use this function ➠ [Power on Link] (p. 29)
When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

[Power off link]

Set Power off Link [On] in the Setup Menu to use this function ➠ [Power off Link] (p. 29)
When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.
● This function will work even if the TV enters Standby mode automatically by auto power standby function.

[Standby Power Save] - Reduce unnecessary power consumption in standby

Set Standby Power Save [On] in the Setup Menu to use this function ➠ [Standby Power Save] (p. 29)
The power consumption in Standby mode of the connected equipment is controlled higher or lower in synchronisation with the TV On / Off state to reduce the consumption.
When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption in Standby mode of the connected equipment is automatically minimised.
When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early.
● This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.
● This function will work when [Power off Link] is set to [On].

[Intelligent Auto Standby] - Auto standby for unnecessary equipment

Set Intelligent Auto Standby [On (With reminder)] or [On (No reminder)] in the Setup Menu to use this function ➠ [Intelligent Auto Standby] (p. 29)
When the TV is On, non-watched or non-used connected equipment goes into Standby mode automatically to reduce the power consumption. For example, when the input mode is switched from HDMI, when Speaker Selection is changed to [TV] (except for watching a disc).
● If you select [On (With reminder)], the on screen message will be displayed to be noticed before working this function.
● This function may not work properly depending on the connected equipment. If required, set to [Off].

45

Features available (Using VIERA Link Menu)

[Pause Live TV]

You can pause the live TV programme and resume later.
Live TV programmes will be recorded on HDD of the connected DIGA Recorder.

- This function is available with a DIGA Recorder which has HDD.
- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect the DIGA Recorder which has a HDD to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
- If you cannot operate, check the settings and the equipment
  ➡ **"Summary of features", "Connection", "Preparations" (p. 44 - 45)**

1 ## Display [VIERA Link Menu]

VIERA Link

2 ## Select [Pause Live TV] and pause
The TV picture will be paused.

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

① select
② pause

- The live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes,
 OPTION
  ➡ (the paused picture will be restored)

■ To operate Pause Live TV

search backward
pause
search forward
playback
stop
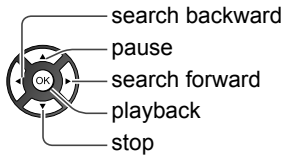
- Operations may be different depending on the recorder. In this case, follow the operation guide or read the manual of the recorder.

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

TV ➡

Pause Live TV	
Stop Pause Live TV?	
Yes	No

① select [Yes]
② stop
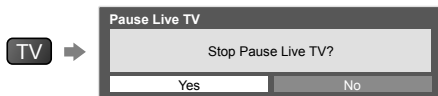
- If you stop playback or cancel pause, the recorded programme will be deleted from HDD.

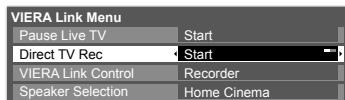### [Direct TV Rec] - What you see is What you record

Recording the current programme in DIGA Recorder immediately.

- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
- If you cannot operate, check the settings and the equipment
  ➡ **"Summary of features", "Connection", "Preparations" (p. 44 - 45)**

1 ## Display [VIERA Link Menu]

VIERA Link

2 ## Select [Direct TV Rec] and start recording

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

① select
② start

■ To stop recording

Select [Stop] in [Direct TV Rec] and stop recording

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

① select
② stop

46

[VIERA Link Control] - Operate the connected equipment with VIERA remote control

You can control some functions of the connected equipment with this TV remote control by pointing at the TV's signal receiver.
● If you cannot operate, check the settings and the equipment
  ➡ **"Summary of features", "Connection", "Preparations" (p. 44 - 45)**
● For details of the operations for the connected equipment, read the manual of the equipment.
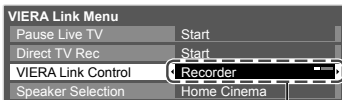
1 Display [VIERA Link Menu]

2 Select [VIERA Link Control]

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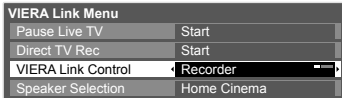
select

3 Select the equipment you want to access

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

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

① select
② access

[Recorder] / [Player] / [Home Cinema] / [Video Camera] / [LUMIX] / [Digital Camera] / [Other]
● You can also access directly by using VIERA TOOLS ➡ **(p. 23)**
● The displayed item may vary depending on the connected equipment.
● [Home Cinema] means Player theatre, Blu-ray Disc theatre or Recorder theatre.
● [Other] means Tuner set top box.

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

4 Operate the connected equipment

● To display the operation guide — OPTION

● Move the cursor / select the menu

● Move the cursor / access / adjust

● Store / set / access

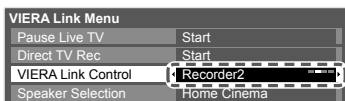● Return to the previous menu — RETURN

● Exit the menu — EXIT

When the key words are displayed on colour bar — R G Y B

> **Note**
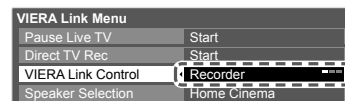> ● Some operations may not be available depending on the equipment. If so, use its own remote control.

■ If multiple recorders or players are connected

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder2
Speaker Selection	Home Cinema

[Recorder1-2 / Player1-2]

The number is given from the TV's lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI1 and HDMI2, in this case the recorder connected to HDMI1 is displayed as [Recorder1], and the recorder connected to HDMI2 is displayed as [Recorder2].

■ If you access non-VIERA Link equipment

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

Type of the connected equipment is displayed.

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

VIERA Link Functions

47

[Speaker Selection] - Speaker control

You can control the theatre speaker with this TV remote control by pointing at the TV's signal receiver.
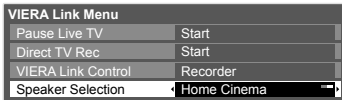● If you cannot operate, check the settings and the equipment
  ➡ **"Summary of features", "Connection", "Preparations" (p. 44 - 45)**

1 ### Display [VIERA Link Menu]

VIERA Link

2 ### Select [Speaker Selection]

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

select

3 ### Set to [Home Cinema] or [TV]

set

[Home Cinema]

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

● Volume up / down + VOL −

● 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.

Multi-channel sound

● If you wish to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect with HDMI cable and Optical digital audio cable (p. 44), and then select [Home Cinema]. If your Amplifier has "HDAVI Control 5" function, you can connect only with HDMI cable. In this case, connect your Amplifier to the TV's HDMI2 terminal.
  To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 44).

Note
● These functions may not work properly depending on the connected equipment.
● Image or sound may not be available for the first few seconds when the Input mode is switched.
● Easy playback may be available by using the remote control for Player theatre, Blu-ray Disc theatre or Amplifier. Read the manual of the equipment.
● "HDAVI Control 5" is the newest standard (current as of December, 2010) 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. 29)**

VIERA Link Functions

48

External Equipment

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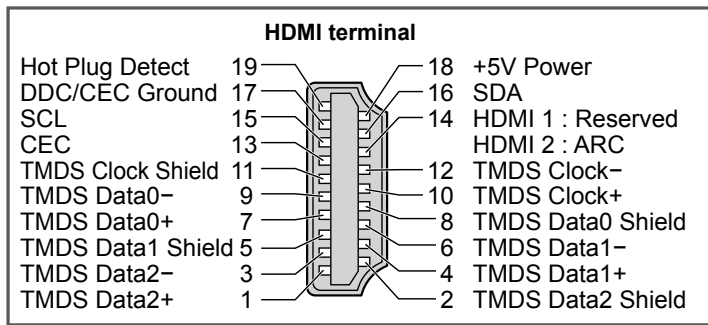
Types of connectable equipment to each terminal

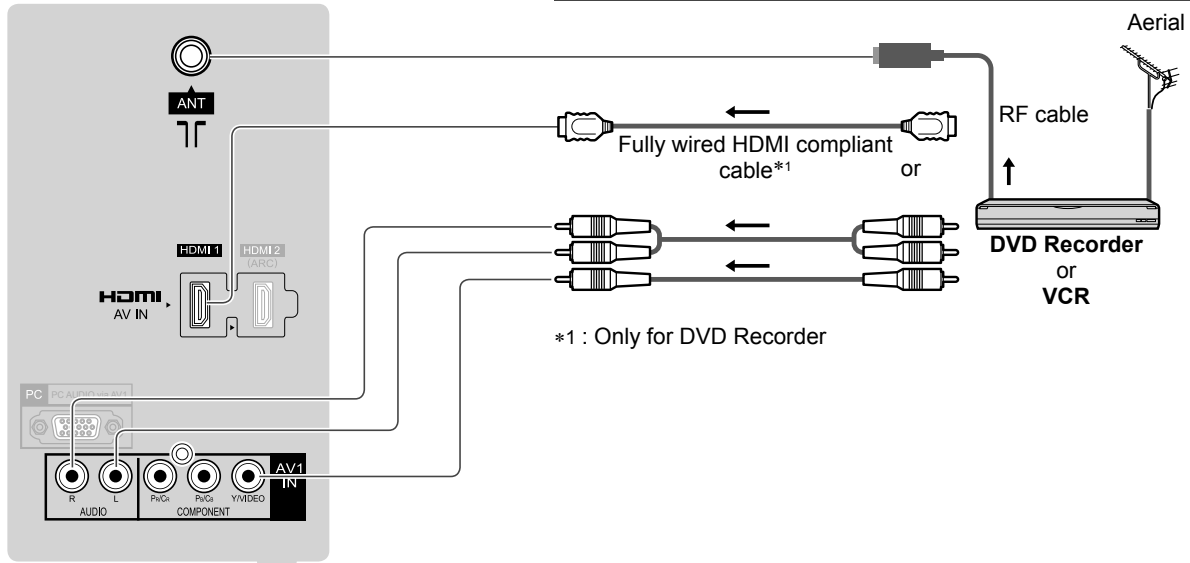| Features	Terminal					
	AV1		DIGITAL AUDIO OUT	HDMI 1 - 2	AV2	
	COMPONENT	VIDEO				
To record / playback videocassettes / DVDs (VCR / DVD Recorder)	◯	◯		◯	◯	
To watch satellite broadcasts (Set top box)		◯		◯*1	◯	
To watch DVDs (DVD Player)	◯	◯		◯	◯	
To watch camcorder images (Video camera)	◯	◯		◯	◯	
To play games (Game equipment)	◯	◯		◯	◯	
To use amplifier with speaker system			◯	◯*2		
VIERA Link				◯		

◯ : Recommended Connection
*1 : Only for DVD Recorder
*2 : Use HDMI2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.
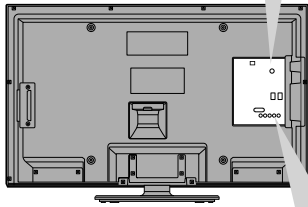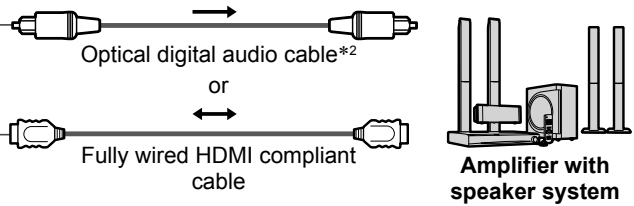
HDMI terminal

Hot Plug Detect	19		18	+5V Power
DDC/CEC Ground	17		16	SDA
SCL	15		14	HDMI 1 : Reserved
CEC	13			HDMI 2 : ARC
TMDS Clock Shield	11		12	TMDS Clock−
TMDS Data0−	9		10	TMDS Clock+
TMDS Data0+	7		8	TMDS Data0 Shield
TMDS Data1 Shield	5		6	TMDS Data1−
TMDS Data2−	3		4	TMDS Data1+
TMDS Data2+	1		2	TMDS Data2 Shield

External Equipment

49

External Equipment

To play back

Aerial

ANT

RF cable

Fully wired HDMI compliant cable*1 or

HDMI 1   HDMI 2 (ARC)

DVD Recorder or **VCR**

HƆMI
AV IN

*1 : Only for DVD Recorder

PC   PC AUDIO via AV1

AV1 IN

R   L   Pr/Cr   Pb/Cb   Y/VIDEO
AUDIO   COMPONENT

Rear of the TV

To listen with Home Theatre

Optical digital audio cable*2

or

Fully wired HDMI compliant cable

Amplifier with speaker system

DIGITAL AUDIO OUT
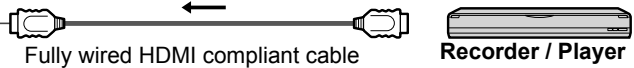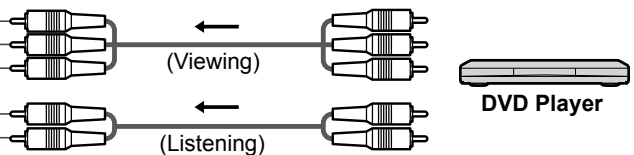
ANT

*2 : If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.
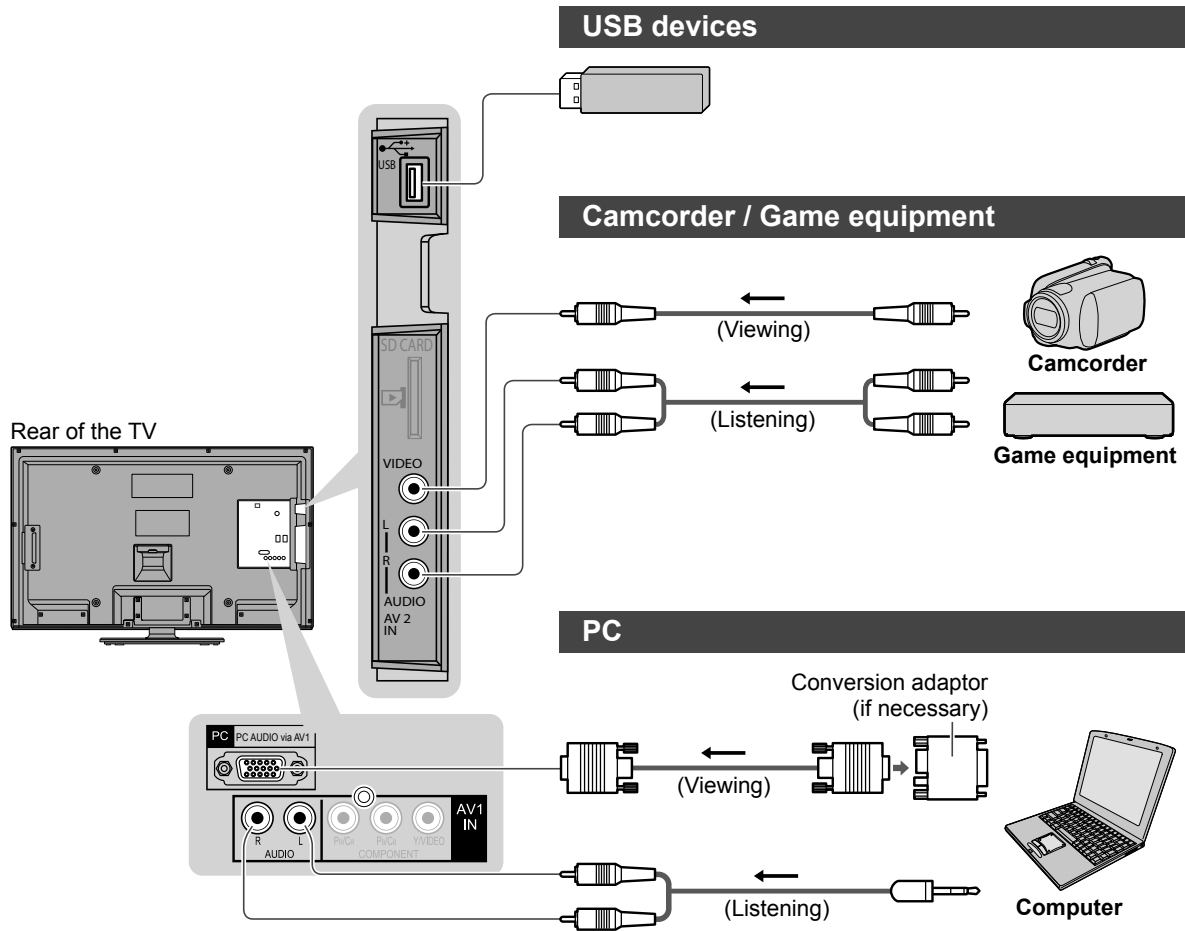
HDMI 1   HDMI 2 (ARC)

HƆMI
AV IN

HDMI equipment

Fully wired HDMI compliant cable

Recorder / Player

● HDMI connection ➡ **(p. 53)**

PC   PC AUDIO via AV1

AV1 IN

R   L   Pr/Cr   Pb/Cb   Y/VIDEO
AUDIO   COMPONENT

To watch DVDs

(Viewing)

DVD Player

(Listening)

50

USB devices

Camcorder / Game equipment

(Viewing)

(Listening)

Rear of the TV

USB

SD CARD

VIDEO

L

R

AUDIO
AV 2
IN

Camcorder

Game equipment

PC

Conversion adaptor
(if necessary)

PC   PC AUDIO via AV1

R   L

AUDIO

P$_B$/C$_B$ P$_R$/C$_R$ Y/VIDEO
COMPONENT

AV1
IN

(Viewing)

(Listening)

Computer

External Equipment

51

Technical Information

Channel Allocation (Analogue TV mode)

CH Display / Receive Channel			
CH 1 - CH 11	CH 21 - CH 70	CH 74 - CH 78	CH 80 - CH 120

Rating (Digital TV mode)
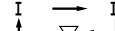
Rating	Meaning
No Block	Not classified
G	General
PGR	Parental Guidance Recommended
AO	Adults Only

Stereo / Bilingual Sound Selection (Analogue TV mode)

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

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	⊙ ⟷ ▽

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

USB connection

- It is recommended to connect the USB Flash Memory directly to the TV's USB ports.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices by using USB card reader.

Note

- Additional information for USB devices may be on the following web site. (English only)
  http://panasonic.jp/support/global/cs/tv/

Technical Information

52

HDMI connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.
HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment[1] with an HDMI or DVI output terminal, such as a DVD player, a set top box or game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see "External Equipment" (p. 49 - 51).

Applicable HDMI features

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

DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable[3].
When the DVI to HDMI adaptor cable is used, connect the audio cable to the audio input terminal (HDMI1 / 2: use AV1 audio terminals).
If the picture position is not fit to the screen during the DVI connection, adjust the position on [DVI Position Settings] in the Setup Menu (p. 28). The settings are memorised for each HDMI terminals and input signals.

> **Note**

- Audio settings can be made on the [HDMI1 / 2 Input] in the Sound Menu. (p. 27)
- 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.
- Equipment having no digital output terminal may be connected to the input terminal of "COMPONENT" or "VIDEO" to receive analogue signals.
- This TV incorporates HDMI™ technology.

*1: The HDMI logo is displayed on HDMI-compliant equipment.
*2: Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.
*3: Enquire at your local digital equipment retailer shop.

PC connection

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

> **Note**

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see p. 54.
- Max. display resolution

Aspect		
	4:3	1,024 × 768 pixels
	16:9	1,366 × 768 pixels

- D-sub 15-pin connector signal

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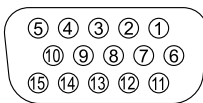
Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

Technical Information

53

Input signal that can be displayed

COMPONENT (Y, P$_B$/C$_B$, P$_R$/C$_R$), HDMI

◯ Mark: Applicable input signal

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

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

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

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

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

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

Technical Information

54

Devices for playing back

SD Card
Card format : SDXC Card - exFAT
SDHC Card / SD Card - FAT16 or FAT32
Compliant card type (maximum capacity) : SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB), miniSD Card
(2 GB) (requiring miniSD adaptor)
- If miniSD Card is used, insert / remove it together with the adaptor.
- Check the latest information on the card type at the following website. (English only)
  http://panasonic.jp/support/global/cs/tv/
- Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.
- Do not remove the card while the TV is accessing data (this can damage the card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to 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.)

2.1 mm

32 mm

24 mm
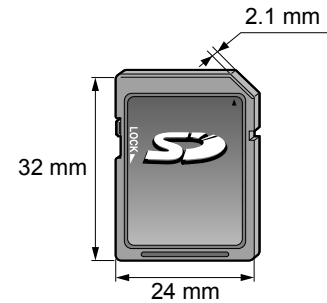
USB Flash Memory
Format : FAT16, FAT32 or exFAT

On screen messages

Message	Meaning / Action
Cannot read file	- The file is broken or unreadable. - The TV does not support the format.
No Device Inserted	- Confirm SD Card or USB device is inserted correctly.
No valid file to play	- The card has no data.
This operation is not possible	- Your operation is not available.

Supported file format in Media Player

■ Photo

Format	File extension	Image resolution (pixel)	Details / Restrictions
JPEG	.jpg	8 × 8 to 30,719 × 17,279	DCF[1] and EXIF[2] standards Sub-sampling : 4:4:4, 4:2:2, 4:2:0 - Progressive JPEG is not supported.

[1] : Design rule for Camera File system - unified standard established by Japan Electronics and Information Technology Industries Association (JEITA)
[2] : Exchangeable Image File - image file format used by digital cameras

■ Music

Codec	File extension	Restrictions
MP3	.mp3	–

Note
- Some files may not be played back even if they fulfil these conditions.
- Do not use two-byte characters or other special codes for data.
- The device may become unusable with this TV if the file or folder names are changed.

Technical Information

55

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
● Check the TV is turned on.
● Check the mains lead is plugged into the TV and the socket outlet.
● Check the TV is in AV mode.
● Check the correct input mode is selected.
● Check the Picture Menu (p. 25 - 26) and volume.
● Check all required cables and connections are firmly in place.

Black and white picture
● Check that the output of the external equipment matches the input of the TV.

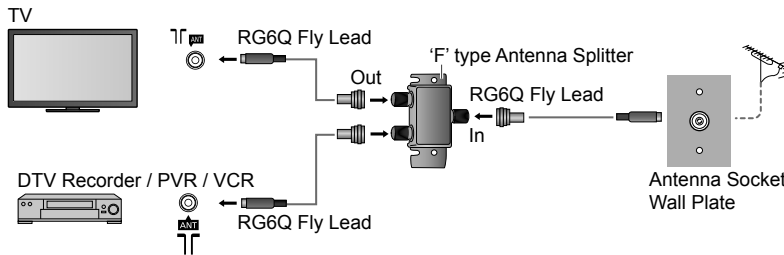**[VIERA Link] function does not work and an error message appears**
● Confirm the connection. ➡ (p. 44)
● Turn the connected equipment on and then switch the TV on. ➡ (p. 45)

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

Problem	Causes / Actions
Screen	
Chaotic image, noisy	● Set [P-NR] in the Picture Menu to remove noise. ➡ (p. 25) ● Check nearby electrical products (car, motorcycle, fluorescent lamp).
No image can be displayed	● Is [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum? ➡ (p. 25)
Blurry or distorted image (no sound or low volume)	● Reset channels. ➡ (p. 31, 32, 33)
Unusual image is displayed	● Turn the TV off with Mains power On / Off switch, then turn it on again. ● If the problem persists, initialise all settings. ➡ **[Shipping Condition] (p. 36)**
[Shop] appears on screen at switch on	● [Shop] was selected in [Auto Tuning] (p. 14) Reset settings in [Shipping Condition] (p. 36), then select [Home] in [Auto Tuning] ➡ (p. 14)
Sound	
No sound is produced	● Is "Sound mute" active? ➡ (p. 9) ● Is the volume set to the minimum?
Sound level is low or sound is distorted	● Sound signal reception may be deteriorated. ● Set [MPX] (p. 27) in the Sound Menu to [Mono]. (Analogue)
HDMI	
Sound is unusual	● Set the sound setting of the connected equipment to "2ch L.PCM". ● Check the [HDMI1 / 2 Input] setting in the Sound Menu. ➡ (p. 27) ● If digital sound connection has a problem, select analogue sound connection. ➡ (p. 53)
Pictures from external equipment are unusual when the equipment is connected via HDMI	● Check the HDMI cable is connected properly. ➡ (p. 50) ● Turn the TV and equipment off, then turn them on again. ● Check an input signal from the equipment. ➡ (p. 54) ● Use equipment compliant with EIA/CEA-861/861D.

Problem	Causes / Actions
Connecting devices such as DTV recorder / PVR / VCR etc that also require an antenna connection to the digital television	● To maintain optimum antenna signal quality, use an 'F' type TV signal splitter (as illustrated) when connecting two or more devices to the same antenna socket. ● Hint: Some degradation of the DTV signal may occur if you are connecting the aerial through an external device (e.g. DVD Recorder or Set Top Box). In this case it is better to use a splitter and connect the aerial directly to both devices.
After digital TV tuning, (or re-tuning) some or all DTV channels are missing	● Check to ensure your area is covered by DTV transmissions. ● Check that the aerial and antenna cable are designed for DTV reception. If you live within 5-10 km of DTV transmission towers, a combined VHF / UHF Digital TV aerial should be adequate. Outside this area, separate VHF and UHF aerials provide superior reception performance. ● If you live in a unit or apartment, check to ensure the Master Antenna TV (MATV) system is designed for analogue and DTV reception. Please consult your body corporate.
Picture infrequently pixelates on some or all channels	● Electrical interference caused by local or distant lighting storms, heavy rain, high wind etc. may cause picture to break up and or audio to mute / distort momentarily. ● Impulse noise interference from an infrequently used electrical appliance, or a passing vehicle or lawn mower with a "noisy" ignition system. ● Older style antenna cabling, loose fitting/corroded wall socket connections / terminals etc.
Picture regularly pixelates on some channels, or 'No Signal' message	● Check [Signal Condition] via TV Setup menu. If [Signal Quality] or [Signal Strength] is red/orange or constantly changing, check aerial/cable/connections. If problem persists, consult your local TV antenna installer. ● Too much signal; is [Signal Strength] always at full strength? If yes, try attenuating (reducing) the signal strength. ● Check that the aerial and antenna cable are designed for DTV reception. ● The received signal may be too weak to allow the TV to reliably lock to the selected channel to generate a viewable picture. If problem persists, consult your local TV aerial installer. ● Interference from household appliances (known as impulse noise) such as light switches, fridges etc. may cause picture break up and / or audio distortion. Use high quality quad shielded coaxial cable (RG6Q) fly lead between TV and antenna wall socket to minimise impulse noise pickup. If problem persists, consult your local TV aerial installer. ● Antenna installation may be using an aerial amplifier that is faulty or an older style aerial amplifier that was not designed for digital TV. ● Older style antenna cabling, loose fitting / corroded wall socket connections / terminals etc. ● Turn the TV off with the Mains power On / Off switch, then turn it On again.

(Left vertical label: Digital TV)

(Note)

Digital TV reception is only as good as the antenna and the antenna cabling delivering the DTV signals to the television. Reliable digital TV reception requires high quality, robust DTV signals which can only be achieved when using a TV antenna and cabling designed for digital TV reception.

(Right vertical label: FAQs)

57

Problem	Causes / Actions
The TV does not switch on	● Check the mains lead is plugged into the TV and the socket outlet.
The TV goes into Standby mode	● Auto power standby function is activated. ➡ **(p. 10)** ● The TV enters Standby mode about 30 minutes after analogue broadcasting ends.
The remote control does not work or is intermittent	● Are the batteries installed correctly? ➡ **(p. 8)** ● Has the TV been switched on? ● The batteries may be running low. Replace them. ● Point the remote control directly at the front of the TV (within about 7 m and a 30 degree angle of the front of the TV). ● Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.
Parts of the TV become hot	● Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises do not cause any problems in terms of performance or quality.
The LCD panel moves slightly when it is pushed with a finger Clattered sound might be heard	● There is some flexibility around the panel to prevent 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.
Overcurrent error message appears	● The connected USB device might cause this error. Remove the device and turn the TV off with Mains power On / Off switch, then turn it on again. ● Check foreign objects are not inside the USB port.
An error message appears	● Follow the message's instructions. ● If the problem persists, contact your local Panasonic dealer or the authorised service centre.

(Row group label: **Other**)

Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

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

For stubborn dirt:
First clean the dust on the surface. Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Wring the cloth and wipe the surface. Finally, wipe away all the moisture.

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

Mains plug

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

FAQs | Maintenance

Specifications

	32" class	39" class
Model No.	**TH-L32EM5Z**	**TH-L39EM5Z**
Power / Power rating	AC 220-240 V, 50 / 60 Hz 0.66 A	AC 220-240 V, 50 / 60 Hz 0.44 A
Normal (Home) mode	42 W	48 W
Standby condition	0.25 W	0.20 W
Display panel / Panel system	TFT LCD Module with LED Backlight	
Visible screen size (diagonal)	80 cm / 32 inches	98 cm / 39 inches
Number of pixels	2,073,600 (1,920 (W) × 1,080 (H))	
Dimensions (W × H × D)	764 mm x 518 mm x 196 mm (With Pedestal) 764 mm x 473 mm x 60 mm (TV only)	915 mm x 599 mm x 230 mm (With Pedestal) 915 mm x 554 mm x 70 mm (TV only)
Mass	9.0 kg Net (With Pedestal) 8.0 kg Net (TV only)	13.0 kg Net (With Pedestal) 11.5 kg Net (TV only)
Sound / Speaker	(90 mm × 25 mm) × 2, 8 Ω	(100 mm × 30 mm) × 2, 8 Ω
Audio output	10 W (5 W + 5 W)	20 W (10 W + 10 W)
Receiving systems / Band name / PAL B / G	Reception of Off air broadcasts	
Digital TV	8 MHz UHF (New Zealand) free-to-air TV broadcast reception	
PAL 60 Hz	Playback of NTSC tape from some PAL Video recorders (VCR)	
M.NTSC	Playback from M.NTSC Video recorders (VCR)	
NTSC	Playback from NTSC Video recorders (VCR)	
Aerial - Rear	Standard Belling & Lee connector	
Operating Conditions	**Temperature:** 0 °C - 35 °C **Humidity:** 20 % - 80 % RH (non-condensing)	

Connection terminals			
AV1 IN	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	COMPONENT	Y P_B/C_B, P_R/C_R	1.0 V[p-p] (including synchronisation) ±0.35 V[p-p]
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
AV2 IN	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
HDMI 1 / 2 input	TYPE A Connectors ● This TV supports "HDAVI Control 5" function.		

PC	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)
	 ● Applicable input signals:
	   VGA, SVGA, WVGA, XGA
	   SXGA, WXGA ⋯⋯ (compressed)
	   Horizontal scanning frequency 31 - 69 kHz
	   Vertical scanning frequency 59 - 86 Hz		

USB	USB 2.0 TYPE A Connectors DC 5 V, Max. 500 mA		
Card slot	SD Card slot × 1		
DIGITAL AUDIO OUT	PCM / Dolby Digital / Fibre optic		

> **Note**
> ● Design and Specifications are subject to change without notice. Mass 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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Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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**

F0712-1

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