Panasonic

TX-P50VT65B
TX-P55VT65B
TX-P65VT65B

eHELP

English

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OK	Letters enclosed in a box indicate remote control buttons.
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	References in this eHELP

- The images shown in this eHELP are for illustrative purposes only.

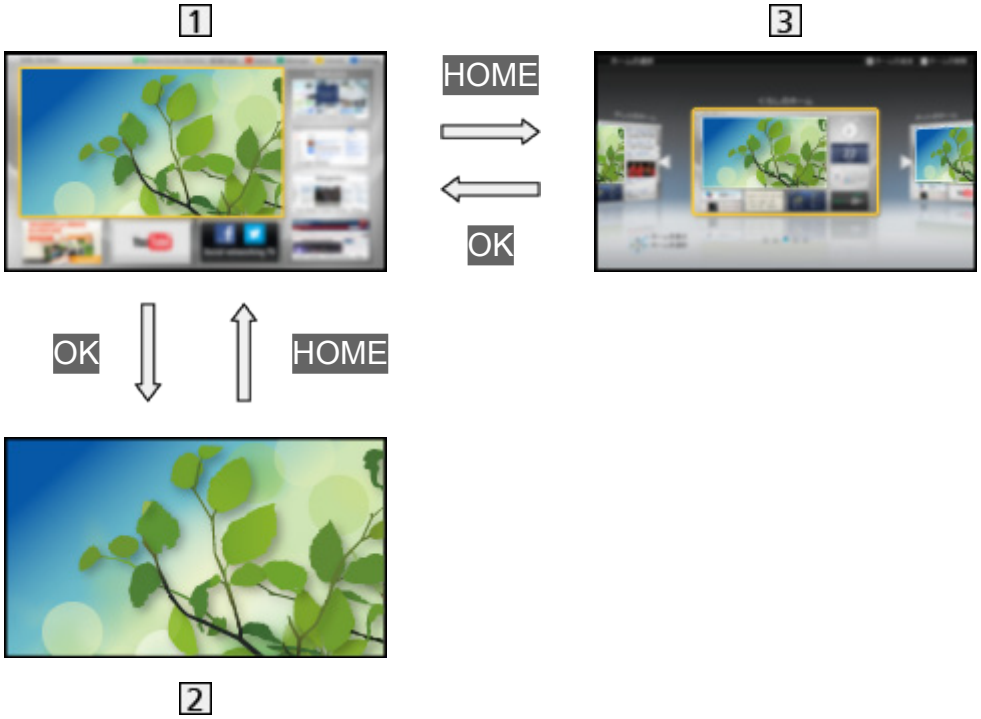
Watching

my Home Screen

Information

“my Home Screen” is a gateway to the TV, applications, and more.

It provides easy access to special features such as the Media Player, videos, games, communication tools, etc. as shown below (example).



1 Home Screen

2 Selected content screen (TV, application, etc.)

3 Home Screen Selection

– Your preferred Home Screen can be selected or added.

How to use

Home Screen provides access to special features such as the Media Player, TV, internet content, data services, communication tools, etc.

1. Display Home Screen with HOME
   (Example)

   - The last viewed Home Screen is displayed when the TV is turned on.
   - Press again to select or add your preferred Home Screen layout.

     → Watching > my Home Screen > Settings

2. Select a feature with △ / ▽ / ◁ / ▷ and press OK to access
   - To watch full-screen TV
     1) Select the TV viewer with △ / ▽ / ◁ / ▷
        (Example)

     2) Press OK to watch
        (Example)

- Also refer to Tutorial from the tool guide.

= Note =

- To prevent panel “image retention”, the brightness of the screen is adjusted when no operation is performed on Home Screen. After a certain period of time, full-screen TV is displayed automatically.

Settings

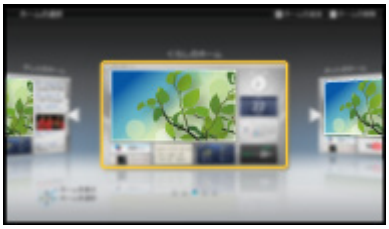
Select the setup menu from the tool guide on the top of the screen, or use coloured button to display the setup menu.

(Example)

■ Home Screen Selection

1. Display Home Screen Selection with HOME

   (Example)

2. Select the screen with ◁ / ▷ and press OK to set

   Full Screen TV:

   Displays full-screen TV

   TV Home Screen:

   To make your TV experience more convenient and comfortable.

   Lifestyle Screen:

   Displays the TV with useful information and services for everyday life.

   Info Screen:

   Enjoy internet content while watching TV.

   Add New Screen:

   You can add a new screen to personalise.

■ Face Recognition

By using the built-in Camera, you can select the registered Home Screen with face recognition. Please refer to Tutorial from the tool guide.

- For details of the built-in Camera

  → Functions > Built-in Camera > Using built-in Camera

■ Settings

You can customise any Home Screen. (For example, changing the wallpaper, renaming freely, editing applications, setting the screen launched when the TV is turned on, etc.)

1. Select Settings from the tool guide
2. Follow the on-screen instructions

■ Search

You can search the content from various features.

1. Select Search from the tool guide
2. Follow the on-screen instructions

= Note =

- To use this function fully, you need a broadband network environment. Ensure the network connections and network settings are completed.

  → Internet service > Network connections

  → Internet service > Network settings

- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you will not be able to use my Home Screen. You can update the software later manually.

  → Internet service > Network settings > Software Update

Basic

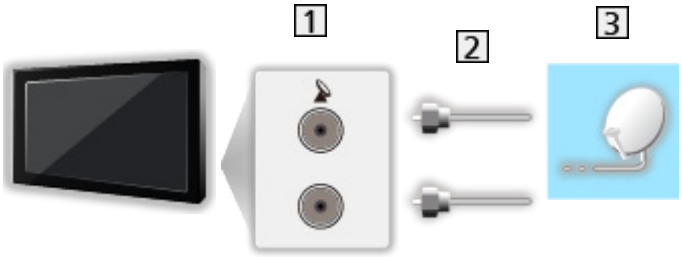
Satellite connection

Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any cables.

- For freesat, Other Sat. / Satellite

■ Dual tuner

Connect the both of satellite IN 1 / IN 2 terminals to the satellite dish, and you can watch or record 2 satellite programmes simultaneously, etc.



1 Satellite IN 1 / IN 2 terminals

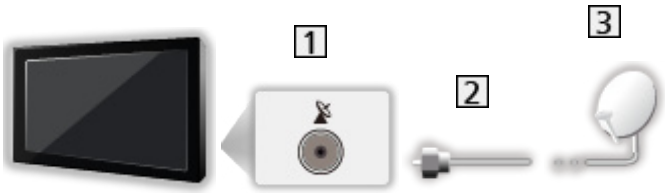
2 Satellite cables

3 Satellite dish

■ Single tuner

Connect the satellite IN 1 terminal to the satellite dish.

- Watching or recording 2 satellite programmes simultaneously, etc. are not available.



1 Satellite IN 1 terminal

2 Satellite cable

3 Satellite dish

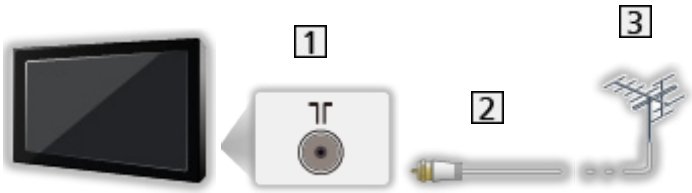
= Note =

- To ensure your satellite dish is correctly installed, please consult your local dealer. Also consult the received satellite broadcasting companies for details.
- The freesat channel uses Astra2 at 28.2° East and Eurobird1 at 28.5° East satellites. To ensure your satellite dish is correctly installed, consult your freesat registered dealer. (UK only)
- External equipment and cables shown are not supplied with this TV.
- 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 affected.
- Check the terminal type and cable plugs are correct when connecting.

Basic connection

Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any cables.

■ Aerial



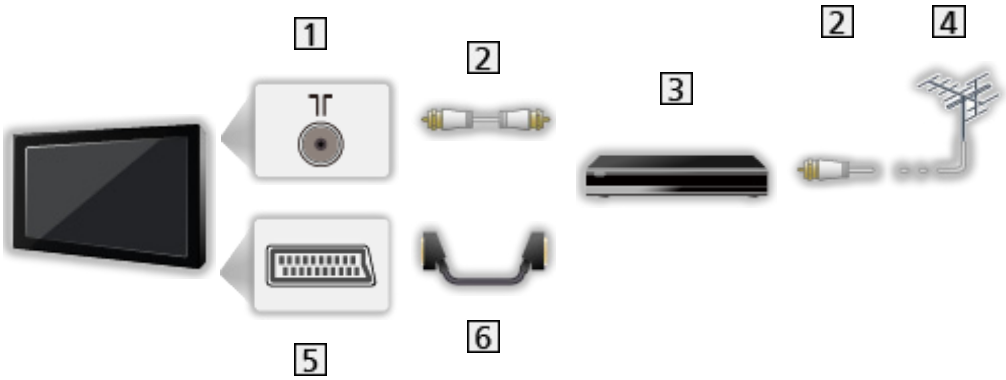
1 Terrestrial terminal

2 RF cable

3 Terrestrial aerial

- For DVB, Analogue

■ DVD Recorder / VCR



1 Terrestrial terminal

2 RF cable

3 DVD Recorder / VCR

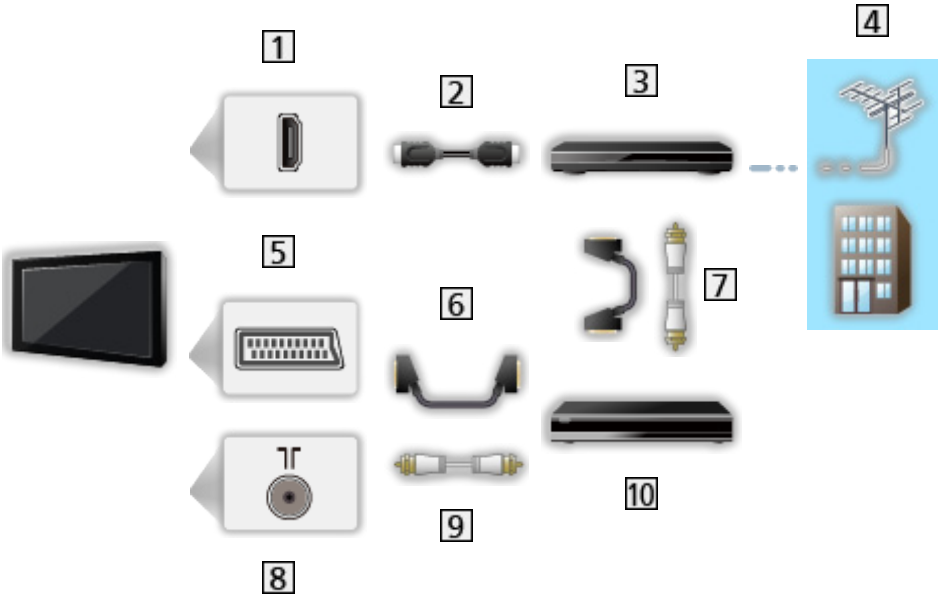
4 Terrestrial aerial

5 AV1 (SCART) terminal

6 SCART cable

– AV1 (SCART) adaptor (supplied) is necessary when connecting to the TV.

■ DVD Recorder / VCR and Set top box



1 HDMI terminal

2 HDMI cable

3 Cable TV box

4 Terrestrial aerial or cable

5 AV1 (SCART) terminal

6 SCART cable

– AV1 (SCART) adaptor (supplied) is necessary when connecting to the TV.

7 RF cable

SCART cable

8 Terrestrial terminal

9 RF cable

10 DVD Recorder / VCR

- For VIERA Link connections

→ Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

= Note =

- External equipment and cables shown are not supplied with this TV.
- 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 affected.
- When using a SCART or HDMI cable, it is recommended to use fully wired one.
- Check the terminal type and cable plugs are correct when connecting.

Selecting channel

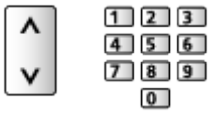
1. Display the TV Selection screen with TV
2. Select the mode with △ / ▽ and press OK to set

   freesat (UK only) / DVB / Analogue / Other Sat. (UK only) / Satellite (Ireland only)

   - Other Sat. is displayed if Auto Setup is completed for Other Sat. channels.

     → Watching > Tuning and editing channels > Auto Setup

   - The selectable modes vary depending on the channels stored.
   - You can also select the mode pressing TV repeatedly on the remote control or INPUT/OK/HOLD for MENU button on the control panel of the TV.
   - If the TV Selection menu is not displayed, press TV to switch the mode.
3. Select a channel with Channel Up / Down or numeric buttons



   - freesat channel position numbers are in the 100 - 999 and 0100 - 0999 ranges. DVB and Other Sat. / Satellite channel position begin from number 1 upward. Analogue channel position numbers are in the 0 - 99 range.

■ To select a channel using information banner

It is possible to confirm the channel name and programme information by using the information banner before changing channels.

1. Display information banner with i if it is not displayed
2. Select a channel with △ / ▽ and press OK to watch while the banner is displayed

→ Watching > Basic > Information banner

■ To select a channel using TV Guide

It is possible to confirm the channel and programme information by using TV Guide (EPG) before changing channels.

1. Display TV Guide with GUIDE
2. Select the current programme or channel with △ / ▽ / ◁ / ▷ and press OK to access
3. Select View with △ / ▽ and press OK to access (DVB)
   – The current programme is displayed on the top left of the screen.
4. Press OK to exit TV Guide

→ Watching > TV Guide > Using TV Guide

■ To watch pay-TV

- For information of the encrypted channels

→ Functions > Common Interface > Using Common Interface

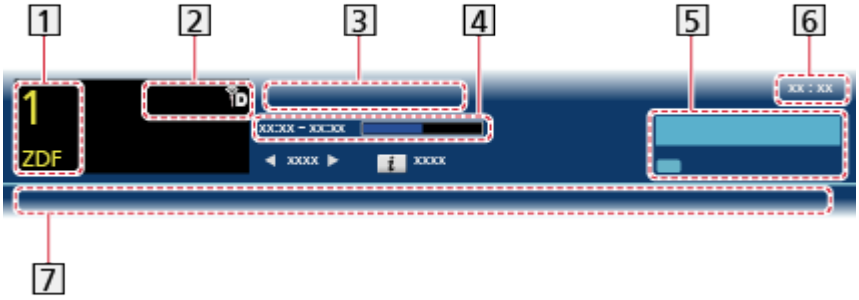
- Consult the operator / broadcaster or CI module manufacturer for more information and conditions of the services.

Information banner

Display information banner with i.

- Also appears when changing a channel.

  (Example)



1 Channel position and name

2 Channel type (Radio, HDTV, etc.) / encrypted channel ( ) / TV mode (, , ,)

3 Programme

4 Programme start / finish time (except Analogue)

Channel position, etc. (Analogue)

Progress time indicator of the selected programme (except Analogue)

5 All DVB Channels / All freesat Channels / All Other Sat. Channels / All Satellite Channels / All Analogue Channels / Favourites 1 to 4

- Press (blue) to switch. (DVB or Other Sat. / Satellite)
- To list favourite channels, set Favourites Edit.

  → Watching > Tuning and editing channels > Favourites Edit

6 Current time

7 Features available / message meanings

Mute:

Sound mute is on

Bad signal:

Poor quality TV signal

Dolby D+, Dolby D, HE-AAC:

Dolby Digital Plus, Dolby Digital or HE-AAC audio track

Also in HD:

Same programme available as HD broadcast

- To display the extra information for details
- UK only

AD:

Audio Description service available

- This function can aid visually-impaired viewers by adding an additional audio track to describe events on screen.

  → Settings > Sound > Audio Description

STTL:

Subtitle service available

TEXT:

Text service available

Multi Audio:

Multiple audio available

Stereo, Mono, NICAM:

Audio mode

1 – 90:

Off Timer remaining time

→ Watching > Basic > Off Timer

- To confirm another tuned channel

  △ / ▽

- To watch the channel listed in the banner

  OK

- Information on the next programme (DVB)

  ▷

- To hide the banner

  EXIT

- Extra information (DVB)

  i

  – Press again to hide the banner.

- To adjust banner timeout, set Banner Display Timeout.

  → Settings > Setup > Display Settings

- AD, STTL, TEXT, Multi Audio indications are displayed as available on particular programmes, but may not be available for all individual programmes being broadcast. Display the extra information to confirm availability of these functions.

Option Menu

Confirm or change the current status.

1. Display Option Menu with OPTION
2. Select one of the following items with △ / ▽ and press OK to access

   Voice Guidance Settings / Audio Description / Multi Audio / AD / Multi Audio / Monaural Audio / Sub Channel / Subtitle Language / Teletext Character Set / Teletext Language / NICAM / Volume Correction

   - The function items vary depending on the country you select.
3. Set with △ / ▽ / ◁ / ▷ and press OK to store

Voice Guidance Settings

Guidance settings for visually impaired users

→ Settings > Sound > Voice Guidance Settings

Audio Description

Set to Auto if the programme has Audio Description service, then you will hear an additional audio track to describe events on screen.

- To adjust the volume for Audio Description (UK only)

  → Settings > Sound > Audio Description
- For DVB mode
- Not valid on the sub screen in multi window mode

Multi Audio / AD

Selects between alternative language or Audio Description for sound tracks (if available).

- Set Audio Description to Auto in the Sound Menu to select the audio description sound track.

  → Settings > Sound > Audio Description
- This setting is not memorised and it will return to the default setting once you exit the current programme.
- In freesat mode, Audio Description cannot be controlled separately from the audio description sound track.
- For freesat mode (UK only)
- For DVB mode (Ireland only)

Multi Audio

Selects between alternative languages for sound tracks (if available).

- This setting is not memorised and it will return to the default setting once you exit the current programme.
- For DVB mode
- For Other Sat. mode (UK only)
- For Satellite mode (Ireland only)

Monaural Audio

Selects stereo / monaural (if available).

- This setting is not memorised and it will return to the default setting once you exit the current programme.
- Not valid in Analogue mode

Sub Channel

Selects the multifeed programme - sub channel (if available).

- For Other Sat. mode (UK only)
- For Satellite mode (Ireland only)

Subtitle Language

Selects the language in which subtitles should appear (if available).

- This setting is not memorised and it will return to the default setting once you exit the current programme.
- Not valid in Analogue mode
- Not valid on the sub screen in multi window mode

Teletext Character Set

Sets the teletext language font.

→ Settings > Setup > Display Settings

- Ireland only

Teletext Language

Selects between alternative languages for teletext (if available).

- For DVB / Satellite mode (Ireland only)

NICAM

Switches NICAM sound (if available).

→ Settings > Sound > Advanced settings

- For Analogue mode

Volume Correction

Adjusts the volume of each individual channel or input mode.

Subtitle

■ freesat, DVB or Other Sat. / Satellite

Display / hide subtitles (if available) with STTL.

■ Analogue

Display subtitles with STTL.

- Hide subtitles with EXIT.

= Note =

- Subtitles may not be displayed properly in 3D images.
- If you press STTL in Analogue mode, the TV switches to teletext service and calls up a favourite page. Press EXIT to return to TV mode.
- This is the same as switching to analogue teletext service and selecting “P888” (subtitle service).

  → Watching > Teletext > Viewing Teletext
- Not valid on the sub screen in multi window mode

Off Timer

Turn the TV Standby mode automatically after a fixed period.

1. Display the menu with MENU
2. Select Timer > Off Timer with △ / ▽ and press OK to access
3. Select the time in 15-minute increments with △ / ▽ and press OK to set

   90 / 75 / 60 / 45 / 30 / 15 / Off (minutes)

- To cancel, set to Off or turn the TV off.
- The remaining time displays on the information banner.

  → Watching > Basic > Information banner

- When the remaining time is less than 3 minutes, the remaining time will flash on the screen.

Last view

Switch to a previously viewed channel or input mode easily with LAST VIEW.

- Press again to return to the current view.

= Note =

- Watching less than 10 seconds is not reflected in the previously viewed channel or input mode.

External equipment

External connection

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.

- For basic connection

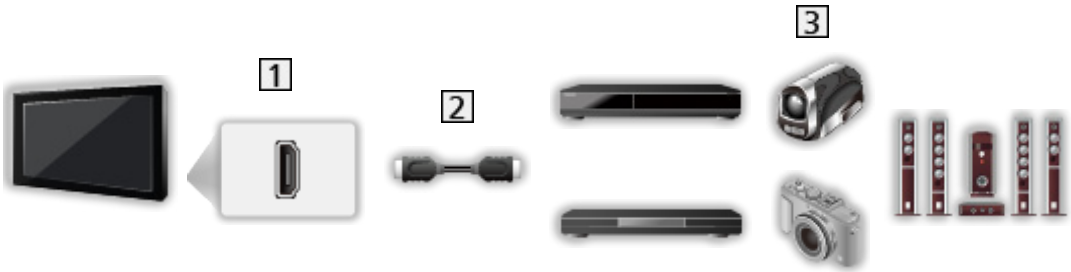
  → Watching > Basic > Basic connection

- To use the specific devices supporting Bluetooth wireless technology

  → Functions > Bluetooth devices

- Check the terminal type and cable plugs are correct when connecting.

■ HDMI equipment



1 HDMI terminal

2 Fully wired HDMI compliant cable

3 Recorder / Player / 3D compatible player / Cable TV box / Camcorder / Amplifier with speaker system

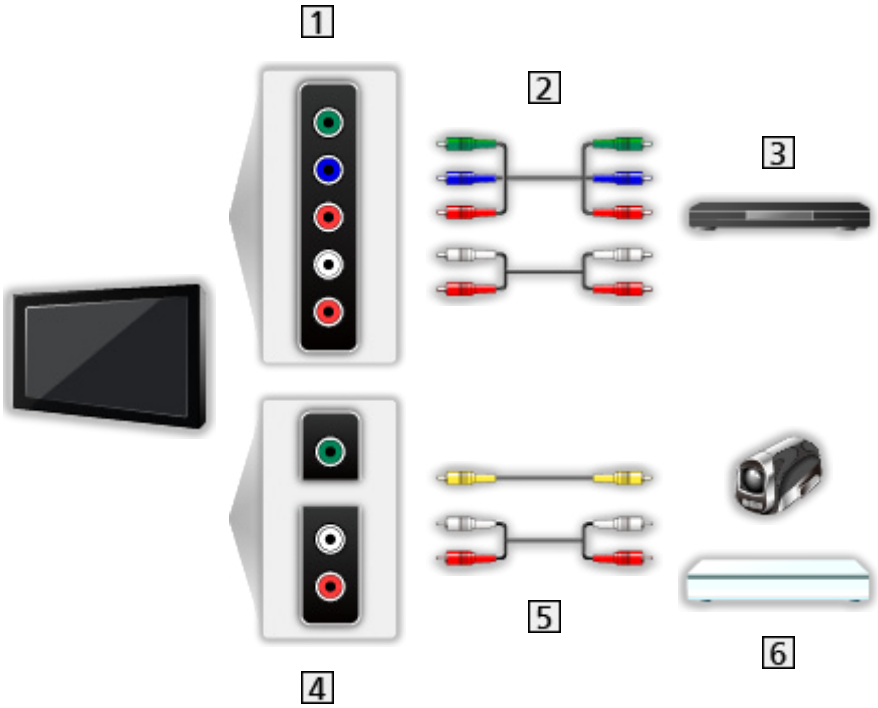
= Note =

- For VIERA Link connections

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Use HDMI2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.

■ AV devices



1 AV2 (COMPONENT) terminals

2 Component cables

– AV2 (COMPONENT / VIDEO) adaptor (supplied) is necessary.

3 DVD player

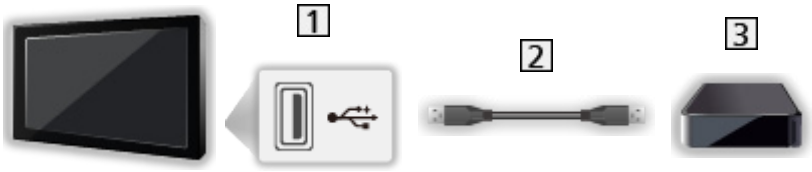
4 AV2 (VIDEO) terminals

5 Composite cables

– AV2 (COMPONENT / VIDEO) adaptor (supplied) is necessary.

6 Camcorder / Game equipment

■ USB devices



1 USB port

2 USB cable

3 USB HDD

= Note =

- It is recommended to connect the devices to the TV's USB ports directly.
- You cannot use two or more of the same kind of USB devices simultaneously except USB Flash Memory or USB HDD.
- Use USB 3 port for connecting the USB HDD.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices by using USB card reader.
- Additional information for the devices may be on the following website. (English only)

  http://panasonic.net/viera/support

■ To listen with speakers

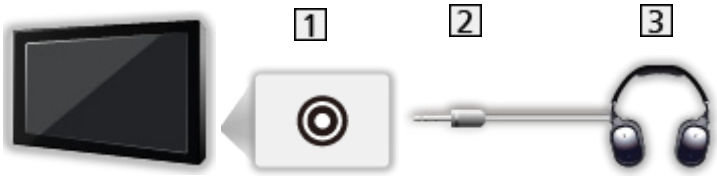
1 DIGITAL AUDIO

2 Optical digital audio cable

3 Amplifier with speaker system

- To enjoy the sound from the external equipment in multi-channel sound (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.

■ Headphones



1 Headphone jack

2 M3 stereo mini plug

3 Headphones

- To adjust volume, set Headphone Volume.

  → Settings > Sound > Volume settings

Watching external input

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

1. Display the input selection menu with AV
2. Select the input mode connected to the equipment with △ / ▽ and press OK to watch (The selected mode is displayed on the top left of the screen)

- TV receives input signals automatically connecting with SCART when playback starts.
  - Input signals are automatically identified by the SCART (pin 8) terminal.
  - This function is also available for HDMI connections.
  - When input mode is not switched automatically, perform as above or check the setup of the equipment.
- You can also select the input pressing AV on the remote control or INPUT/OK/HOLD for MENU button on the control panel of the TV. Press repeatedly until the desired input is selected.
- To switch between COMPONENT and VIDEO in AV2, select with ◁ / ▷.
- You can label or skip each input mode. Skipped inputs will not be displayed when AV is pressed. (Input Labels)

  → Settings > Setup > Display Settings
- The remote control is capable of operating the contents or external equipment.

  → Watching > External equipment > Operating with TV's remote control
- To return to TV mode

  TV

= Note =

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

■ Screen display

- Manual input (default setting in Input Labels)

  AV1: AV1, AV1-RGB

  AV2: COMPONENT, VIDEO

  HDMI1: HDMI1

  HDMI2: HDMI2

  HDMI3: HDMI3

- Auto input (EC mode or VIERA Link)

  AV1: EC/AV1, EC/AV1-RGB

  AV2: --

  HDMI1: HDMI1

  HDMI2: HDMI2

  HDMI3: HDMI3

Operating with TV's remote control

You can operate the contents in Media Player / media server, recording functions or the connected equipment with the below buttons of this TV's remote control.

▶ :

Playback videocassette / DVD / video content

■ :

Stop the operations

⏮ :

Rewind, view the picture rapidly in reverse (VCR)

Skip to the previous track, title or chapter (DVD / video content)

◀◀ :

Rewind, view the picture rapidly in reverse (VCR)

Search backward (DVD / video content)

⏭ :

Fast-forward, view the picture rapidly forward (VCR)

Skip to the next track, title or chapter (DVD / video content)

▶▶ :

Fast-forward, view the picture rapidly forward (VCR)

Search forward (DVD / video content)

❚❚ :

Pause / Resume

Press and hold to play at slow speed (DVD)

● :

One Touch Recording

→ Recording > Recording current programme > One Touch Recording

■ How to change the code

Each Panasonic product has its own remote control code. Change the code according to the product for operation.

1. Press and hold Standby On / Off switch during the following operations

2. Enter the appropriate code as follows with numeric buttons

- Codes for each product and features

  70: DVD Recorder, DVD Player, Blu-ray Disc Player

  71: Player theatre, Blu-ray Disc theatre

  72: VCR

  73 (default):

  Using in USB HDD recording, Media Player, DLNA features, product using in VIERA Link

3. Press ■ to change

= Note =

- Confirm if the remote control works correctly after changing the code.
- The codes may be reset to defaults if batteries are replaced.
- Some operations may not be available depending on the equipment.

HDMI features

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* 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.

→ Watching > External equipment > External connection

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

■ Applicable HDMI features

- Input audio signal:

  2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)

- Input video signal:

  Matches the output setting of the digital equipment.

  → Watching > External equipment > Valid input signals

- VIERA Link (HDAVI Control 5)

  → Functions > VIERA Link "HDAVI Control™" > Summary of VIERA Link

- Content Type
- Deep Colour
- Audio Return Channel
  - Audio Return Channel (ARC) is a function to send digital sound signals via an HDMI cable.
  - For HDMI2 terminal
- 3D
- x.v.Colour™

■ DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable. When using the DVI to HDMI adaptor cable, connect the audio cable to the audio input terminal (use AV2 audio terminals).

- AV2 (COMPONENT / VIDEO) adaptor (supplied) is necessary when connecting to the AV2 audio terminals.
- Enquire HDMI adaptor cable at your local digital equipment retailer shop.

= Note =

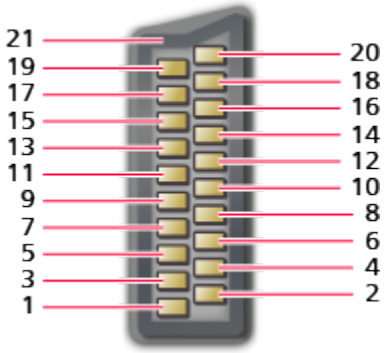
- Audio settings can be made on HDMI1 / 2 / 3 Input in the Sound Menu.

  → Settings > Sound > Advanced settings

- 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.

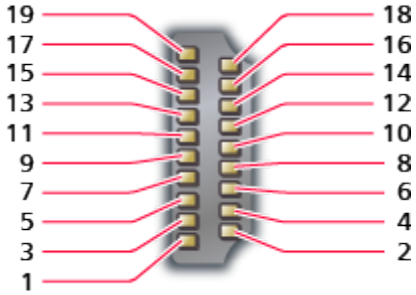
Terminal information

■ AV1 SCART terminal (RGB, VIDEO)



1 : Audio out (R)
2 : Audio in (R)
3 : Audio out (L)
4 : Audio earth
5 : Blue earth
6 : Audio in (L)
7 : Blue in
8 : Status CVBS
9 : Green earth
10: --
11: Green in
12: --
13: Red earth
14: Earth
15: Red in
16: Status RGB
17: CVBS earth
18: RGB status earth
19: CVBS out (video)
20: CVBS in (video)
21: Socket Earth

■ HDMI terminal



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

Valid input signals

■ COMPONENT (Y, Pb, Pr), HDMI

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

○: Applicable input signal

= Note =

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.

For best picture

Viewing Mode

1. Display the menu with MENU
2. Select Picture > Viewing Mode with △ / ▽ and press OK to access
3. Select the mode with △ / ▽ and press OK to set

Viewing Mode

(Dynamic / Normal / Cinema / THX Cinema / THX Bright Room / Custom / Professional1 / Professional2)

Selects your favourite picture mode for each input.

Dynamic:

Improves contrast and sharpness for viewing in a bright room.

Normal:

Normal use for viewing in a normal lighting condition.

Cinema:

Improves the performance of contrast, black and colour reproduction for watching movies in a darkened room.

THX Cinema*:

Reproduces the original image quality precisely in a darkened room.

- THX3D Cinema is displayed instead of THX Cinema in 3D mode.

THX Bright Room*:

Reproduces the original image quality precisely in a bright room.

- Not valid in 3D mode

Custom:

Adjusts each menu item manually to suit your favourite picture quality.

Professional1 / 2:

Allows you to set and lock the professional picture settings.

→ Watching > For best picture > Advanced Settings

- This mode is available only when Professional Mode (isfccc) in the Setup Menu is set to On.
- If the certified professional dealer sets these modes, Professional1 and Professional2 may be displayed as isf Day and isf Night.

In each Viewing Mode, Contrast, Brightness, Colour, Tint, Sharpness, Colour Temperature, Vivid Colour, Ambient Sensor, Noise Reduction, MPEG Remaster, Resolution Remaster, Caption Smoother, Brilliance Enhancer, Intelligent Frame Creation and 24p Smooth Film can be adjusted and stored.

When in Custom or Professional1 / 2 mode, Advanced Settings can be adjusted additionally. The settings in Custom or Professional1 / 2 mode can be stored for each input.

- You can set Viewing Mode in 2D and 3D mode for each.

*: THX modes are used to mirror the picture settings used by professional filmmakers, faithfully reproducing the image quality of THX Certified movies. THX Certified movies have the THX logo on the disc. THX modes are not available for photo contents or internet services.

Ambient Sensor

1. Display the menu with MENU
2. Select Picture > Ambient Sensor with △ / ▽ and press OK to access
3. Select On / Off with △ / ▽ and press OK to set

Ambient Sensor

(On / Off)

- Automatic Brightness Control function

Adjusts picture settings automatically depending on ambient lighting conditions.

Auto power standby function

The TV will automatically go into Standby mode in the following conditions:

- Off Timer is active.

  → Watching > Basic > Off Timer

- No operation is performed for 4 hours while Auto Standby is set to On.

  → Settings > Timer > Auto Standby

- No signal is received and no operation is performed for 10 minutes while No signal Power off is set to On.

  → Settings > Timer > No signal Power off

= Note =

- This function does not affect the recording of Timer Programming and One Touch Recording.

Aspect

Change the aspect ratio (image size) with ASPECT.

■ To change the aspect ratio manually

1. Display Aspect Selection list with ASPECT
2. Select the mode with △ / ▽ and press OK to set

- You can also change the mode pressing ASPECT.

  (Press repeatedly until you reach the desired mode.)

Auto:

The best ratio is selected automatically according to the “Aspect Control Signal”.

→ Watching > For best picture > Aspect Control Signal

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.

Zoom:

Displays a 16:9 letterbox or 4:3 image without distortion.

4:3 Full:

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

- For HD (High definition) signals

Sidecut Just:

Displays a 16:9 letterbox (anamorphic) image full-screen. Stretching is only noticeable at the left and right edges.

- For HD (High definition) signals

Sidecut Zoom:

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

- For HD (High definition) signals

= Note =

- Display the image (TV, external input, etc.) full-screen to use this function completely.
- Aspect mode can be memorised separately for SD (Standard definition) and HD (High definition) signals.
- Aspect cannot be changed in teletext service and 3D format signals.

Aspect Control Signal

Programmes usually contain an “Aspect Control Signal” (Widescreen signal, Control signal through SCART / HDMI terminal).

In Auto mode, aspect mode will appear in the top left of the screen if a Widescreen signal (WSS) or a Control signal through SCART (pin8) / HDMI terminal is found. The aspect will switch to the appropriate ratio.

→ Watching > For best picture > Aspect

■ Available conditions

● Terrestrial terminal (WSS only)

Valid input signal format:

DVB

PAL I

Invalid input signal format:

PAL 525/60 6.0 MHz

M.NTSC 6.0 MHz

● Satellite terminal (WSS only)

Valid input signal format:

freesat, Other Sat. / Satellite

● AV1 (SCART) / AV2 (VIDEO) terminals

Valid input signal format:

PAL

PAL 525/60 *

M.NTSC *

NTSC *

*: Control signal through SCART (pin 8) / HDMI terminal only

- AV2 (COMPONENT) terminals (WSS only)

  Valid input signal format:

  625 (576) / 50i, 50p

  Invalid input signal format:

  525 (480) / 60i, 60p

  750 (720) / 60p, 50p

  1,125 (1,080) / 60i, 50i

- HDMI terminal

  Valid input signal format:

  525 (480) / 60i, 60p

  625 (576) / 50i, 50p

  750 (720) / 60p, 50p

  1,125 (1,080) / 60i, 50i

  1,125 (1,080) / 60p, 50p, 24p

  - HDMI terminal does not receive WSS signal.

= Note =

- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. Read the manual of the VCR.

Advanced Settings

You can adjust and set up the detailed picture settings for each input when Viewing Mode is set to Custom or Professional1 / 2 mode.

→ Watching > For best picture > Viewing Mode

1. Select the input mode with AV or TV
2. Display the menu with MENU
3. Select Picture > Viewing Mode with △ / ▽ and press OK to access
4. Select the mode with △ / ▽ and press OK to set

   Custom / Professional1 / Professional2

■ Adjust the detailed picture settings

1. Display the menu with MENU
2. Select Picture > Advanced Settings > Panel Luminance Setting / Adaptive Gamma Control / Black Expander / Colour Gamut / White Balance / Colour Management / Gamma with △ / ▽ and press OK to access
3. Set with △ / ▽ / ◁ / ▷ and press OK to store

■ Panel Luminance Setting

Panel Luminance Setting

(High / Mid / Low)

Changes the luminance level of the panel to adjust the overall brightness.

■ Adaptive Gamma Control

Adaptive Gamma Control

Adjusts the gamma curve to make the image brighter.

■ Black Expander

Black Expander

Gradually adjusts the shades of black.

■ Colour Gamut

Colour Gamut

(Native / Rec. 709 / SMPTE-C / EBU)

Reproduces image colour precisely according to the colour gamut standards.

Native:

Displays deep colours by expanding the colour gamut to its maximum.

Rec. 709:

Standard for HD (High definition)

SMPTE-C:

Standard for NTSC

EBU:

Standard for PAL

- For HDMI input or video contents of Media Player (when Colour Remaster is set to Off.)

■ White Balance

R-Gain / G-Gain / B-Gain

Adjusts the white balance of bright red / green / blue areas.

R-Cutoff / G-Cutoff / B-Cutoff

Adjusts the white balance of dark red / green / blue areas.

More Detailed Adjustment

Adjusts more detailed White Balance items.

Input Signal Level:

Adjusts the input signal level.

R-Gain / G-Gain / B-Gain:

Adjusts the detailed white balance of bright red / green / blue areas.

Reset to Defaults:

Resets to the default detailed White Balance.

Reset to Defaults

Resets to the default White Balance.

■ Colour Management

R-Hue / R-Saturation / R-Luminance

Adjusts the picture hue / saturation / luminance of red areas.

G-Hue / G-Saturation / G-Luminance

Adjusts the picture hue / saturation / luminance of green areas.

B-Hue / B-Saturation / B-Luminance

Adjusts the picture hue / saturation / luminance of blue areas.

More Detailed Adjustment

Adjusts more detailed Colour Management items.

Y-Hue / C-Hue / M-Hue:

Adjusts the picture hue of yellow / cyan / magenta areas.

Y-Saturation / C-Saturation / M-Saturation:

Adjusts the saturation of yellow / cyan / magenta areas.

Y-Luminance / C-Luminance / M-Luminance:

Adjusts the luminance of yellow / cyan / magenta areas.

Reset to Defaults:

Resets to the default detailed Colour Management.

Reset to Defaults

Resets to the default Colour Management.

■ Gamma

Gamma

(2.6 / 2.4 / 2.2 / 2.0 / 1.8 / S Curve)

Switches the gamma curve.

- Please note the numerical values are reference for the adjustment.

More Detailed Adjustment

Adjusts more detailed Gamma items.

Input Signal Level:

Adjusts the input signal level.

Gain:

Adjusts the gain of gamma for selected signal level.

Reset to Defaults:

Resets to the default detailed Gamma.

Reset to Defaults

Resets to the default Gamma.

■ Reset to Defaults

Reset to Defaults

Resets Advanced Settings to the default settings.

Lock Settings

Locks the settings of Professional1 / 2 mode for each input.

1. Display the menu with MENU
2. Select Picture > Lock Settings with △ / ▽ and press OK to access
3. Enter the PIN number (4 digits) with numeric buttons

   - Enter the PIN number twice at first setting.
   - Make a note of the PIN number in case you forget it.
4. Select Adjustment Lock with △ / ▽ and press OK to access
5. Select On with △ / ▽ and press OK to set

- Contrast, Brightness, Colour, Tint, Sharpness, Colour Temperature, Vivid Colour, Resolution Remaster, Caption Smoother, Brilliance Enhancer, Advanced Settings and Reset to Defaults in the Picture Menu can be locked.

■ To change the PIN number

1. Select Change PIN with △ / ▽ and press OK to access
2. Enter a new PIN number twice with numeric buttons

Copy Adjustment

Copies the picture settings of Custom, Professional1 or Professional2 to those of another input or another Viewing Mode.

1. Display the menu with MENU
2. Select Picture > Copy Adjustment > Destination Viewing Mode / Destination Input with △ / ▽ and press OK to access
3. Select the destination to copy to with △ / ▽ and press OK to set
4. Select Copy Start with △ / ▽ and press OK to copy
5. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set

= Note =

- Option Settings, Screen Settings and 3D Settings will not be copied.
- You cannot copy to the locked mode.

For best audio

Sound mode

1. Display the menu with MENU
2. Select Sound > Mode with △ / ▽ and press OK to access
3. Select the mode with △ / ▽ and press OK to set

Mode

(Standard / Music / Ambience / User)

Selects your favourite sound mode for each input.

Standard:

Provides the suitable sound quality for all types of scenes.

Music:

Improves sound quality for watching music videos, etc.

Ambience:

Improves spatial effects and provides clear sounds.

User:

Adjusts the sounds manually using the equaliser to suit your favourite sound quality.

- In each mode, Bass, Treble, Surround, Bass Boost and Digital Remaster can be adjusted and stored.
- For the User mode, Equaliser will be available in the Sound Menu instead of Bass and Treble. Select Equaliser and adjust the frequency.

  → Settings > Sound > Basic settings

- This function is effective only for the sound from TV speakers.

TV Guide

Using TV Guide

TV Guide - Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the forthcoming broadcasts over the next seven days (depending on the broadcasters).

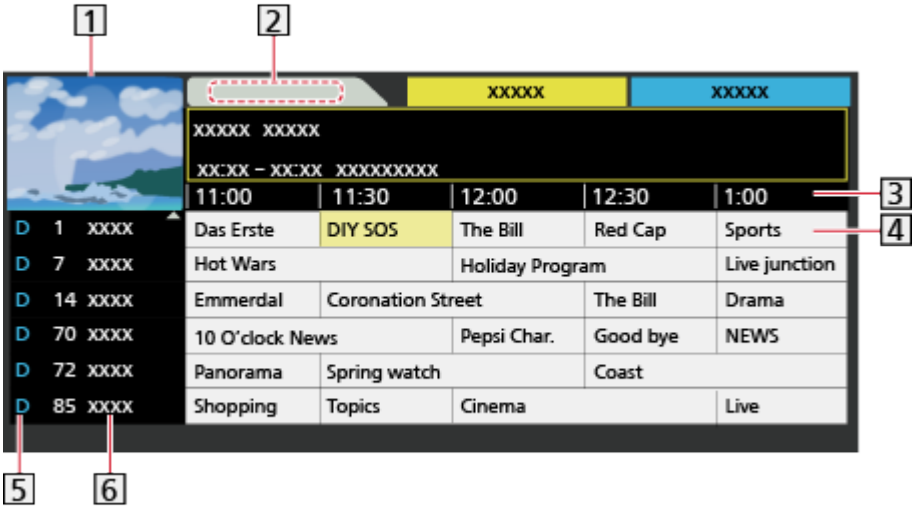
1. Display the TV Selection screen with TV
2. Select the mode with △ / ▽ and press OK to set

   freesat (UK only) / DVB / Analogue
3. Press GUIDE to view TV Guide

- To change the layout of TV Guide, set TV Guide View.

  → Settings > Setup > TV Guide Settings

  (Example)



1 TV screen

2 TV Guide date

3 TV Guide time

4 Programme

HD : Some programmes may also be broadcast in HD.

- UK only
- You can select HD or SD broadcast before viewing or setting Timer Programming.

5 D (DVB) / A (Analogue)

– No images are displayed in freesat mode. (UK only)

6 Channel position and name

- To watch the programme
  1) Select the current programme with △ / ▽ / ◁ / ▷ and press OK to access
  2) Select View with △ / ▽ and press OK to access (DVB)
     – To use timer programming, select Timer Programming.
       → Watching > TV Guide > Timer Programming
     – The current programme is displayed on the top left of the screen.
  3) Press OK to exit TV Guide
     – If a programme exists in both HD and SD broadcasts, the View Options screen will be displayed. Select HD or SD broadcast. (except Analogue) (UK only)
- To the previous day (DVB)

  (red)
- To the next day (DVB)

  (green)
- To view a channel list of the selected type
  1) Display the type list with (yellow)
  2) Select the type with △ / ▽ and press OK to view
  – Ireland only
- To search programme titles and view a list of the searched programmes (except Analogue) (if available)
  1) Display the search list with (yellow)
  2) Select Search with △ / ▽ and press OK to access
  3) Enter characters with △ / ▽ / ◁ / ▷ and press OK to set
     – You can set characters using numeric buttons.
       → Functions > Setting characters > Using numeric buttons
  4) Press (green) to start searching
     – All the programme titles including the word you set will be listed.
     – Searching without any characters will list all programmes including current programmes.
- To view a channel list of the selected category (genre)
  1) Display the category list with (blue)
  2) Select the category with △ / ▽ and press OK to view
     – To list favourite channels, set Favourites Edit.
       → Watching > Tuning and editing channels > Favourites Edit

- To view more details of the programme (except Analogue)
  1) Select the programme with △ / ▽ / ◁ / ▷
  2) Press i to view
  – Press again to return to TV Guide.
- To exit TV Guide

  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 TV Guide is completely shown.
- DVB and Analogue channels are displayed on the same TV Guide screen. D means DVB channel and A means Analogue channel. There will be no programme listings for Analogue channels.
- In Other Sat. / Satellite mode, the channel list will appear when pressing GUIDE.

Timer Programming

The Timer Programming menu allows you to choose programmes that you want to remind watching or record to the USB HDD. At the correct time, the TV will tune to the correct channel even if the TV is in Standby mode.

1. Select the forthcoming programme or channel with △ / ▽ / ◁ / ▷ and press OK to access
2. Select USB HDD Rec. / Reminder with △ / ▽ and press OK to set
   - To check / change / cancel a timer programming event

     → Recording > Timer Programming > Editing timer programming
   - LED will turn to orange in Standby mode if Timer Programming is set.
   - To return to TV Guide

     BACK/RETURN
   - If you select the current programme, a confirmation screen asking whether you want to watch or record the programme appears. Select Timer Programming with △ / ▽ and press OK to set USB HDD Rec. to record from the time you finish the timer programming event setting.
   - is displayed on the TV Guide screen if Timer Programming is set from TV Guide.
   - If a programme exists in both HD and SD broadcast, the Timer Options screen will be displayed. Select HD or SD broadcast with △ / ▽ and press OK to set. HD will be displayed if HD broadcast is set.

= Note =

- For freesat and DVB mode
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- Depending on the progress of recording, analogue channel may not be selected.
- When recording programmes to the USB HDD, be sure to format the USB HDD and enable it to record in USB Device Setup.

  → Recording > USB HDD setup

Guide link programming

■ Guide link programming (Timer Programming from the TV Guide signal)

Guide link programming is Timer Programming which is controlled by information from the TV Guide; if programme start and end times are changed by the broadcaster, the timer programming event will follow the change.

A Split Programme programming is a Guide link programming which is interrupted by one or more other programmes. Note that Guide link programming (including Split Programme programming) only works reliably if correct information is received from broadcasters.

- UK only
- Guide is displayed on the Timer Programming screen if the timer is set from the TV Guide. (Guide link programming)
- S/P is displayed on the Timer Programming screen if the timer is set from the TV Guide and the programme is a Split Programme.
- / is displayed on the TV Guide screen if Timer Programming is set from the TV Guide.
- For freesat and DVB mode

= Note =

- If you edit the start time or end time of a Guide link programming event by more than 10 minutes, it will no longer follow the broadcaster's changes to the start or end time. The start and end times will become fixed.
- The Split Programme programming event for Reminder will be cleared by pressing OK once to view.
- The Split Programme programming event for Reminder will switch to the programmed channel by pressing OK even if it is between the interrupted programmes.
- The Split Programme programming does not work if the separated parts are broadcast on different channels.

Teletext

Digital text service

Digital text services (MHEG) differ greatly from analogue teletext.

When you switch to a digital text service, the images you see can contain graphics and text, laid out and controlled in a manner decided by the broadcaster.

1. Display the TV Selection screen with TV
2. Select freesat (UK only) / DVB with △ / ▽ and press OK to set
   - freesat and DVB programmes may have digital text services (MHEG).
3. Switch to a digital text service with TEXT

■ How to operate services

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

- To exit a digital text service

  TEXT

= Note =

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

Viewing Teletext

1. Switch to teletext with TEXT
   - Displays the index page (content varies depending on the broadcasters).
   - Current / sub page numbers are displayed on the top left of the screen.
   - Time / date is displayed on the top right of the screen.
   - Colour bar is displayed on the bottom of the screen.
2. Select the page with numeric buttons, △ / ▽ or (Coloured buttons)

- To adjust contrast
  1) Press MENU twice to display Contrast
  2) Adjust with ◁ / ▷ and press OK to set
- To exit teletext

  EXIT

■ Reveal hidden data

1. Press MENU
2. Reveal with (red)

- Press again to rehide.

■ To view a favourite page stored

Press STTL to view a favourite page.

- Call up the page stored on (blue) (List mode).
- Factory setting is “P888” (subtitle service) on (blue) (List mode).

■ FULL / TOP / BOTTOM

1. Press MENU
2. Press (green) to change the layout

■ Watch TV and teletext in two windows at once

1. Press TEXT to view in multi window
   - Operations can be made only in teletext screen.
2. Press TEXT repeatedly to return to TV or teletext

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

1. Press (Coloured buttons) while the page is displayed
2. Press and hold OK

- The stored page number changes to white.
- If you use Subtitles, do not change number on (blue).
- To change stored pages
  1) Press (Coloured buttons) to change
  2) Enter a new page number with numeric buttons

     1 2 3
     4 5 6
     7 8 9
     0

  3) Press and hold OK

■ View sub page

The number of sub pages is displayed on the top of the screen. Press ◁ / ▷ to view sub page. (Only when teletext has more than one page.)

- The number of sub pages varies depending on the broadcasters (up to 79 pages).
- Searching may take time while you are watching TV.
- To view a specific sub page
  1) Press MENU
  2) Press (blue)
  3) Enter the 4-digit number (e.g. P6, press 0 0 0 6)

Teletext mode

Teletext services are the text information provided by the broadcasters.

- The features may vary depending on the broadcasters.
- The availability of teletext services for a programme is indicated by TEXT in the information banner.

1. Display the menu with MENU
2. Select Setup > Display Settings > Teletext with △ / ▽ and press OK to access
3. Select FASTEXT / List with △ / ▽ and press OK to set

→ Settings > Setup > Display Settings

■ FASTEXT mode

In FASTEXT mode, four differently coloured subjects are situated on the bottom of the screen.

To access more information about one of these subjects, press the appropriate coloured button.

This facility enables fast access to information on the subjects shown.

■ List mode

In List mode, four differently coloured page numbers are situated on the bottom of the screen. Each of these numbers can be changed and stored in the TV's memory.

→ Watching > Teletext > Viewing Teletext

3D

Note

- Display the image (TV, external input, etc.) full-screen for viewing 3D.
- If light appears to flicker under fluorescents or dimmers when using the 3D Eyewear, change the setting of 3D Refresh Rate.

  → Watching > 3D > 3D Settings
- Do not exert pressure on or scratch the lens of the 3D Eyewear.
- 3D content will not be correctly visible if the 3D Eyewear is worn upside down or back-to-front.
- When viewing 3D images, make sure your eyes are at an approximately horizontal level and keep a position where you do not see double images.
- Do not wear the 3D Eyewear when watching something other than 3D images. Liquid crystal displays (such as computer screens, digital clocks or calculators, etc.) may be difficult to see while wearing the 3D Eyewear.
- Do not use the 3D Eyewear as sunglasses.
- 3D effects may be perceived differently depending on the person.

3D Eyewear - Functions

■ Part names and functions

1 Power button / Mode change / Indicator lamp

- Power button
  - Press and hold for approx. 1 second to turn the 3D Eyewear On. (The indicator lamp lights for 2 seconds.)
  - Press and hold for 3 seconds or more to turn the 3D Eyewear Off. (The indicator lamp lights 3 times.)
- Mode change
  - Press and hold for approx. 1 second to change the mode between 3D and 2D (view a 3D image in 2D).
  - When power is off, press and hold for approx. 5 seconds to change to registration mode.

    → Watching > 3D > 3D Eyewear - Registration
- Indicator lamp
  - Lights or flashes during use to show the status (see below).

2 Protection film

- Peel off the protection film on both side of the lens.

3 Insulating sheet

4 Battery cover

- When using for the first time, remove the insulating sheet. Pull the insulating sheet.
- To replace the battery

  → Watching > 3D > 3D Eyewear - Replacing battery

■ Indicator lamp status

- Lights red for 2 seconds when turned on:

  Sufficient battery level

- Flashes 5 times when turned on:

  Low battery level

- Flashes red:

  Under registering

- Flashes red once every 1 second:

  Under reconnecting to the TV

- Flashes red 3 times:

  Power off (Press and hold for more than 3 seconds when in use, or automatically power off when registering / reconnecting fails, or connection is lost)

- Flashes red once every 2 seconds when in use:

  3D mode is selected.

- Flashes red twice every 4 seconds when in use:

  2D mode is selected.

■ Storing and cleaning the 3D Eyewear

- Store the 3D Eyewear in a cool, dry place.
- Clean using a soft, dry cloth.
  - Wiping the 3D Eyewear with a cloth that is covered in dust or dirt may scratch the eyewear. Shake off any dust from the cloth before use.
  - The lens of the 3D Eyewear is easily broken. Be careful when cleaning the lens.
- Do not use benzene, thinner or wax on the 3D Eyewear, otherwise this may cause peeling of the paint.
- Do not dunk the 3D Eyewear in liquid such as water.

3D Eyewear - Registration

■ First registration

Perform the first registration when the 3D Eyewear is used for the first time.

1. Turn the TV on
2. Press Power button for about 1 second to turn the 3D Eyewear on
   - The lamp lights for about 2 seconds and then flashes.
   - The 3D Eyewear will be turned on and the registration will start.
   - Place the 3D Eyewear within 50 cm from the TV while registration in progress.
3. After the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when the 3D Eyewear is turned on near the TV in 3D mode

■ Registration again

When connection with the registered TV fails, or when using with another TV, re-register the 3D Eyewear.

1. Turn the TV on
2. Within 50 cm from the TV, press Power button until lamp lights, then release it to start registration
3. After the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when the 3D Eyewear is turned on near the TV in 3D mode

= Note =

- If the registration failed, the 3D Eyewear will be turned off. In this case, turn the TV off and perform from step 1.

3D Eyewear - Replacing battery

When the battery is running low, the indicator lamp flashes 5 times on turning the 3D Eyewear on. In this case, early battery replacement is recommended.

- Dispose of the old batteries as non-burnable rubbish, or in line with the waste disposal regulations in your local area.

1. Remove the battery cover using pen tip or screwdriver (minus -) etc.

2. Replace the battery (coin-shaped lithium battery CR2025)

- If difficulty, remove it with the tip of the driver.
- Note the correct polarity (+ or -).

3. Attach the battery cover

Viewing 3D

You can enjoy viewing 3D images with contents or programmes corresponding to the 3D effect by wearing the 3D Eyewear.

- This TV supports Frame Sequential, Side by Side and Top and Bottom 3D formats.
  - Frame Sequential is the 3D format that the images for the left and right eyes are recorded with the high definition quality and alternately played back.
- The 3D Eyewear must be worn to view 3D images. Perform the First Registration when the 3D Eyewear is used for the first time.

→ Watching > 3D > 3D Eyewear - Registration

1. Turn the 3D Eyewear on and put it on
   - Connection status and battery status are displayed on the bottom right of the screen.
2. View the 3D images
   - Safety precautions will be displayed when you first watch the 3D image. Select Yes or No to continue to view 3D images.

     If you select Yes, this message will be displayed again in the same condition after Mains power On / Off switch is next turned on. Select No if you do not want to display this message again.
   - Turn off the 3D Eyewear after using it.

■ Playing back 3D-compatible Blu-ray disc (Frame Sequential format)

- Connect the 3D-compatible player via a fully wired HDMI compliant cable. (If you use the non 3D-compatible player, the images will be displayed in 2D mode.)
- If the input mode is not switched automatically, select the input mode connected to the player.

→ Watching > External equipment > Watching external input

■ 3D-supported broadcast

- Please consult the suppliers of contents or programmes for availability of this service.

■ 3D photos and 3D videos taken by 3D-compatible Panasonic products

- Available in Media Player and Network services

  → Media Player

  → Home network

■ 2D images converted to 3D

- Set to 2D→3D mode in 3D Mode Selection.

  → Watching > 3D > 3D Mode Selection

3D Mode Selection

You can easily change the viewing mode between 2D and 3D with 3D.

1. Display the 3D Mode Selection screen with 3D
2. Select the mode with △ / ▽ and press OK to set

- Items of 3D Mode Selection vary depending on the condition.

3D / 2D:

Displays the appropriate image as you desire without selecting 3D format.

- This mode may not work properly depending on the source image format. In this case, select the appropriate 3D format manually.

■ To change 3D format manually

When the image is not changed properly using 3D / 2D mode, use this manual setting.

1. Display the 3D Mode Selection (Manual) screen with (red) during above operation
2. Select the mode with △ / ▽ and press OK to set

Original:

Displays the source image as it is.

- Use to identify the format type of the source image.

  → Watching > 3D > Source image format

Side by Side - 3D / Side by Side - 2D / Top and Bottom - 3D / Top and Bottom - 2D:

Displays the mode you select.

- Not valid in Analogue and AV mode

2D→3D:

Converts 2D images into 3D.

- Please note the 3D images appear slightly different from the originals.
- Using this function for profit-making purposes, or publically showing images converted from 2D to 3D in places such as shops or hotels etc. may infringe on the rights of the copyright holder protected under copyright law.

3D Settings

1. Display the menu with MENU
2. Select Picture > 3D Settings with △ / ▽ and press OK to access
3. Select one of the following items with △ / ▽ and press OK to access

   3D Detection / 3D Signal Message / 3D Refresh Rate / 2D→3D Depth / 3D Adjustment / L/R Picture Swap / Edge Smoother / Safety Precautions
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

- To exit the menu screen

  EXIT

3D Detection

(On (Advance) / On / Off)

Selects whether to switch to the 3D mode automatically or not.

On (Advance):

Detects all the 3D format signals and displays the 3D image automatically.

On:

Detects the particular 3D format signals (Frame Sequential, etc.) and displays the 3D image automatically.

- To view 3D images without any notifications and operations, set to On (Advance).

3D Signal Message

(On / Off)

Selects whether to give a notification message when a signal of 3D format is found or not.

- Not valid when 3D Detection is set to On (Advance)
- For DVB, Component and HDMI input

3D Refresh Rate

(Auto / 100Hz / 120Hz)

Reduces juddering and flicker noises of the 3D images when using the 3D Eyewear.

100Hz:

If light appears to flicker under fluorescents (or dimmers) of 50 Hz.

120Hz:

If light appears to flicker under fluorescents (or dimmers) of 60 Hz.

2D→3D Depth

(Max / Mid / Min)

Selects a level of 3D-image depth for viewing converted 2D images.

3D Adjustment

(On / Off)

Adjustment of the 3D effect (except in 2D→3D mode).

Set to On to enable Effect setting.

- When setting to On, a safety precaution message will appear. Read it carefully and press BACK/RETURN to go to Effect setting.
- When adjusting, take into account that the vision of 3D images varies among different individuals.

Effect:

Adjusts the 3D depth according to the contents or to your preference. (This setting will not be memorised when changing the input mode or channel.)

L/R Picture Swap

(L/R (Normal) / R/L (Reversed))

Swaps pictures for left eye and right eye (except in 2D→3D mode).

Select R/L (Reversed) if you feel that the sense of depth is unusual.

- This setting will not be memorised when changing the input mode or channel.

Edge Smoother

(On / Off)

Set to On if you feel the contoured parts of an image are not smooth enough (except in 2D→3D mode).

Safety Precautions

Displays the precautions for viewing 3D images.

= Note =

- Display the image (TV, external input, etc.) full-screen to use this function completely.

Source image format

If the picture appears to be abnormal, refer to the table of images that can be seen for each 3D Mode Selection (Manual) and the source image format, and select the correct 3D mode.

- 3D images are displayed correctly with appropriate 3D format as following yellow boxes.

1 Source image format

2 Side by Side

3 Top and Bottom

4 Normal format (2D)

5 3D Mode Selection

6 Original

7 Side by Side - 3D

8 Top and Bottom - 3D

9 2D→3D

*: When selecting Side by Side - 2D or Top and Bottom - 2D, the images will be displayed without 3D effect.

- Depending on the player or broadcasts, the image may be different from the above illustrations.

Tuning and editing channels

Setting menu

You can retune channels, create your favourite channel lists, skip unwanted channels, etc.

1. Display the TV Selection screen with TV
2. Select the mode with △ / ▽ and press OK to set

   freesat (UK only) / DVB / Analogue / Other Sat. (UK only) / Satellite (Ireland only)
3. Display the menu with MENU
4. Select Setup > Tuning Menu with △ / ▽ and press OK to access

   freesat Tuning Menu (UK only) / DVB Tuning Menu / Analogue Tuning Menu / Other Sat. Tuning Menu (UK only) / Satellite Tuning Menu (Ireland only)

   - The menu name varies depending on the TV mode.
5. Select one of the functions with △ / ▽ and press OK to access

   Favourites Edit / Channel List / Regional Channel Edit / Auto Setup / Channel Sorting by Region / Manual Tuning / Update Channel List / New Channel Message / Signal Condition / Add New Channels

   - The function items vary depending on the country you select.

   → Settings > Setup > Tuning Menu

Favourites Edit

■ List favourite freesat channels

Create your favourite channel list from various broadcasters.

The freesat Favourites list is available for switching from Channel Genre in the TV Guide screen.

→ Watching > TV Guide > Using TV Guide

1. Select Favourites Edit with △ / ▽ and press OK to access
2. Select a channel to list from all freesat channels with △ / ▽
   - appears when the channel is encrypted.
   - To add all channels to the list, press (yellow).
   - To delete a channel
     1) Select the channel with △ / ▽
     2) Press OK to delete
     – Press (yellow) to delete all channels

■ List favourite Other Sat. / Satellite channels

Create your favourite channel lists from various broadcasters (up to 4: Favourites1 to 4).

The Other Sat. / Satellite Favourites lists are available for switching in the information banner.

→ Watching > Basic > Information banner

- To change the category, press (blue).
- To add consecutive channels to the list at once
  1) Press (yellow)
  2) Make the channel block with △ / ▽ and press OK to add

■ List favourite DVB channels

Create your favourite channel lists from various broadcasters (up to 4: Favourites 1 to 4).

The DVB Favourites lists are available for switching in the Information banner and from Category in the TV Guide screen.

→ Watching > Basic > Information banner

→ Watching > TV Guide > Using TV Guide

1. Select Favourites Edit with △ / ▽ and press OK to access
2. Select a channel to list from all DVB channels with △ / ▽
   - appears when the channel is encrypted.
   - To display other Favourites

     (green)
3. Press OK to add it to Favourite List
   - To add all channels to the list

     1) Press (yellow)

     2) Press (green) to add all
4. Press BACK/RETURN and OK to store

■ Edit DVB Favourites list

You can edit the favourites list while the cursor is on the channel in the favourites list.

- To move the channel

  1) Select the channel with △ / ▽

  2) Press (green)

  3) Select the new position with △ / ▽ or select the turn with numeric buttons

  4) Press (green) to store
- To delete the channel

  1) Select the channel with △ / ▽

  2) Press OK to delete

  – Press (yellow) to delete all channels

- To name the Favourites
  1) Press (red)
  2) Enter characters (maximum 10 characters) with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

  3) Press BACK/RETURN to store

= Note =

- Channel position numbers (known as logical channel numbers) can be swapped in Channel List. To swap the channel position number.

  Watching > Tuning and editing channels > Channel List

Channel List

■ Skip unwanted freesat / DVB / Analogue channels

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

1. Select Channel List with △ / ▽ and press OK to access
2. Select a channel with △ / ▽
3. Press OK to set Reveal / Hide (skip)

   ☑ : Reveal

   ☐ : Hide (skip)

   - To reveal all channels (DVB / Analogue)

     (yellow)

■ Edit DVB / Analogue Channels

- To swap the channel position number (logical channel number)
  1) Press (green) to edit
  2) Enter the new position number with numeric buttons, and press (green) to store

- To retune each channel (Manual Tuning)

  (red)

  – Only for the revealed channels

- To rename the channel name (Analogue)
  1) Press (blue) to edit
  2) Enter characters (maximum 5 characters) with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

     1 2 3
     4 5 6
     7 8 9
     0

  3) Press BACK/RETURN to store

= Note =

- If a VCR is connected only with the RF cable in Analogue mode, edit VCR.

■ Create the channel list for Other Sat. / Satellite

Create your channel list of Other Sat. / Satellite for viewing from all the found channels to exclude the duplicated channels or to reduce the number of channels. And then you can select your desired channels easily.

1. Select a channel to list from Channels Found with △ / ▽
   - To change the category

     (red)
2. Press OK to add it to Channels for Viewing
   - To add consecutive channels to the list at once
     1) Press (yellow)
     2) Make the channel block with △ / ▽ and press OK to add
   - To delete the selected channel from the list of Channels Found

     (green)
   - To exclude the selected channel from the list of Channels for Viewing

     OK
   - To move the selected channel in the list of Channels for Viewing
     1) Press (green)
     2) Select the new position with △ / ▽ or select the turn with numeric buttons

        1 2 3
        4 5 6
        7 8 9
        0

     3) Press (green) to store

Regional Channel Edit

You can replace some regional channels with the available channels from another region channel (if available).

1. Select a channel to replace from freesat Regional Channels with △ / ▽ to set
2. Select a channel to be replaced from Alternative Regional Channels with △ / ▽ to set

Auto Setup

Automatically retunes the channels received in the area.

- This function is available if channel tuning is already performed.
- Only the selected mode is retuned. All the previous tuning settings are erased.
- If Child Lock PIN number has been set, the PIN number is required.

  → Functions > Child Lock > PIN number
- If tuning has not been done completely, set Manual Tuning.

  → Watching > Tuning and editing channels > Manual Tuning

  – For DVB / Analogue / Other Sat. / Satellite mode

■ freesat channels (UK only)

- To use dual tuner function, set Dual Tuner Mode to On.

1. Select Auto Setup with △ / ▽ and press OK to access
2. The confirmation screen is displayed and press OK to start Auto Setup (Settings are made automatically)
3. Enter your postcode with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

   - When the operation is completed, the channel at the lowest position will be displayed.

■ DVB, Analogue channels

1. Select Auto Setup with △ / ▽ and press OK to access
2. The confirmation screen is displayed and press OK to start Auto Setup (Settings are made automatically)
   - When the operation is completed, the channel at the lowest position will be displayed.

■ Other Sat. / Satellite channels

- To use dual tuner function, set Dual Tuner Mode to On.

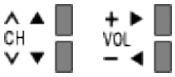
1. Select Auto Setup with △ / ▽ and press OK to access
2. Select the satellite with ◁ / ▷
   - Select IN 1 / IN 2 in Signal Input with ◁ / ▷ to set for each tuner.
   - Selectable satellites are Astra2/Eurobird, Astra1 and Hotbird.
   - Check the dish alignment for the satellite to select.
     – For Astra2/Eurobird

       → Watching > Basic > Basic connection

     – For Astra1 and Hotbird, please consult the received satellite broadcasting companies.
   - If you want to tune from all available satellites, select Any Satellite.
3. Select Start with △ / ▽ and press OK to access
4. The signal condition is displayed and press OK to access
   - If you select Any Satellite, this step is skipped.
   - It takes a while to check the connection for your selected satellite.
   - Ensure that the Signal Lock status is shown as Locked. If it is not locked, the search cannot be executed.
   - If the status is shown as Not locked and Signal Quality / Signal Strength have no indications, please check the dish alignment. If the status is shown as Not locked but there are some levels of Signal Quality / Signal Strength indicated, select Any Satellite in step 2 and try again.
5. The confirmation screen is displayed and press OK to access
6. Select the search mode with ◁ / ▷ and press OK to start Auto Setup (Settings are made automatically)
   - If you select Astra2/Eurobird or Any Satellite, freesat channels will also be searched.
   - When the operation is completed, the channel at the lowest position will be displayed.

■ Auto Setup using the buttons on the TV

1. Press and hold INPUT/OK/HOLD for MENU button for 3 seconds to display the menu
2. Set Auto Setup with following control panel buttons
   - Move the cursor / select from a range of options / select the menu item (up and down only)



   - Access the menu / store settings after adjustments have been made or options have been set with INPUT/OK/HOLD for MENU button.

Channel Sorting by Region

You can sort DVB channels so that those with the best signal quality, or those for your preferred region, appear nearer the top of your Channel List. (UK only)

1. Select the region with △ / ▽ and press OK to access
2. Select repeatedly until you reach the available region

- Normally, you should select Best signal quality (All Regions).
- If you choose to select your preferred region, you could find channels with a weaker signal appear nearer the top of your Channel List. If you have any image or sound problems, select Best signal quality (All Regions) instead.

Manual Tuning

- Normally use Auto Setup or Update Channel List to retune DVB channels.
- If tuning has not been done completely or for adjusting the direction of the aerial, use this function. (DVB)
- All DVB channels found will be added to Channel List.

■ DVB (UK)

1. Select Frequency with △ / ▽
2. Press OK to search

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

■ DVB (Ireland)

1. Select a channel with △ / ▽ and adjust frequency with ◁ / ▷ for each channel
   - Set where the level of Signal Quality becomes the maximum.
2. Press OK to search

■ Analogue

Set Analogue channel manually after Auto Setup.

1. Select the channel position with numeric buttons

2. Select the channel with Channel Up / Down button

3. Search with ◁ / ▷
4. Select Store with △ / ▽ and press OK to set

- Use Fine Tuning to make small adjustments to the tuning of an individual programme (affected by weather conditions, etc.).
  – Ireland only
- If a VCR is connected only with the RF cable, select channel position 0.

■ Other Sat. / Satellite

Set tuning parameters for the required satellite, details can usually be found in a satellite TV magazine.

- Normally use Auto Setup or Add New Channels to retune Other Sat. / Satellite channels.
- Please consult the received satellite broadcasting companies for the setting.

Update Channel List

By updating the DVB channel list, you can add new channels, delete removed channels or change channel names and positions automatically.

- The 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.

New Channel Message

Selects whether to give a notification message when a new DVB channel is found or not.

- When a notification message appears, you can perform Update Channel List pressing OK.

Signal Condition

Selects a channel and checks the signal condition.

A good Signal Strength is not an indication of suitable signal for freesat / DVB reception.

- Use the Signal Quality indicator as follows.
  - Green bar: Good
  - Yellow bar: Poor
  - Red bar: Bad (Check the terrestrial aerial or satellite dish)
- Vertical lines show the maximum signal value of the selected channel.
- To change the channel

- For freesat and DVB mode

Add New Channels

You can add any new channels found automatically to Channel List.

1. The signal condition is displayed and press OK to access
   - If you select Any Satellite in Auto Setup, this step is skipped.
   - It takes a while to check the connection for your selected satellite.
   - Ensure that the Signal Lock status is shown as Locked. If it is not locked, the search cannot be executed.
   - If the status is shown as Not locked and Signal Quality / Signal Strength have no indications, please check the dish alignment.
2. Select the search mode with ◁ / ▷ and press OK to start Add New Channels
   - New channels can only be added to the existing Channel List from the same satellite.

Recording

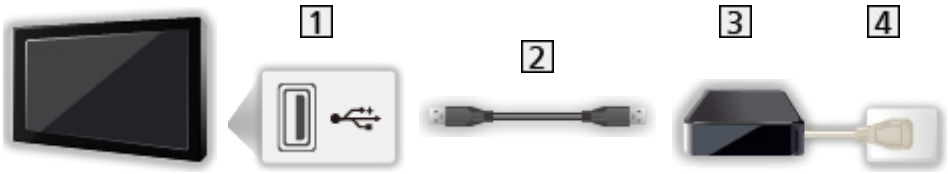
USB HDD setup

Preparations

You can record the digital TV programmes to the connected USB HDD and enjoy playing back in various ways.

- Prepare the USB HDD for the exclusive use of recording with this TV.
- Connect the USB HDD to the USB 3 port with the USB cable.
- Be sure to connect the USB HDD to the socket outlet.
- To remove the USB HDD safely from the TV, perform Safely remove USB in USB Device Setup.

  → Recording > USB HDD setup > Setting for USB HDD
- Check the terminal type and cable plugs are correct when connecting.



1 USB port

2 USB cable

3 USB HDD

4 Socket outlet

= Caution =

- All data in the USB HDD will be erased in the following cases:
  - When formatting the USB HDD with this TV

    → Recording > USB HDD setup > Setting for USB HDD
  - When formatting the USB HDD to use on PC, etc.
- When the TV is repaired due to a malfunction, you may have to format the USB HDD again with this TV to use it. (All data will be erased after formatting.)
- In order to use the USB HDD with your PC after recording with this TV, format it again on your PC. (Special operations or tools may be necessary to format on your PC. For details, read the manual of the USB HDD.)

- The data recorded on the USB HDD with this TV can only be played back on this TV. You cannot play back its contents with another TV (including the TV of the same model number) or any equipment.
- Do not turn the TV off, pull out the mains plug or remove the USB HDD during operation (formatting, recording, etc.). Doing so may cause malfunction of the device or damage the recorded data. (An electric outage may also be a cause of malfunction.)

= Note =

- Analogue TV programme cannot be recorded on the USB HDD.
- The data broadcasting (MHEG, etc.), radio broadcasting will not be recorded, and also the recording function will not work during the period without any signal.
- Not all the programmes can be recorded depending on the broadcaster and service provider.
- You cannot copy the recorded contents of the USB HDD.
- The recorded content may not be played back properly while 2 recordings are in progress.
- For more information of the USB HDD

→ Recording > Technical information > USB HDD

Setting for USB HDD

Format and set up the USB HDD with this TV in order to use it for recording.

All the USB devices recognised as a mass storage device will be listed.

- Please note that USB HDD will be formatted and all data in it will be erased after this setup.
- Before setting, connect the USB HDD and be sure to turn on the USB HDD.

→ Recording > USB HDD setup > Preparations

1. Display the menu with MENU
2. Select Setup > USB Device Setup with △ / ▽ and press OK to access
3. Select the USB HDD for recording with △ / ▽ and press OK to start setup
   - Some USB HDD may not be displayed.
   - To display information of the highlighted device

     i
4. When the caution and confirmation screen for using USB HDD is displayed, select Yes with ◁ / ▷ and press OK to proceed

5. When the confirmation screen of USB HDD name is displayed, select Yes with ◁ / ▷ and press OK to set
   - The name for the USB HDD is created automatically. If you want to edit the name, select Yes.
     1) Enter characters with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

     2) Press BACK/RETURN to store
6. When the confirmation screen to enable USB HDD for recording is displayed, select Yes with ◁ / ▷ and press OK to set
   - If another formatted USB HDD for recording already exists, this confirmation screen will be displayed to switch to enable this USB HDD for recording.

- Mode of the USB HDD
  - ●▷ : The USB HDD is available for recording / playing back. Only one USB HDD on the list is available for recording.
  - ▶ : The USB HDD is available for playing back.
- To change the mode

  OK
- To edit USB HDD name

  (green)
- To format

  (red)
- To remove the USB HDD safely from the TV

  (yellow)

= Note =

- You can only select one USB HDD for recording at a time.
- You cannot change the settings for the USB HDD while recording is in progress.
- Ensure that Dual Tuner Mode is set to On in Auto Setup to record 2 programmes simultaneously in freesat or Other Sat. / Satellite mode.

  → Watching > Tuning and editing channels > Auto Setup

Recording current programme

One Touch Recording

Records the current programme to the USB HDD immediately.

- Confirm the remote control code is “73”.

  → Watching > External equipment > Operating with TV’s remote control

1. Display the menu with MENU
2. Select Setup > Recording Setup > One Touch Recording with △ / ▽ and press OK to access
3. Select the maximum recording time 30 / 60 / 90 / 120 / 180 (minutes) with △ / ▽ and press OK to set

■ To start One Touch Recording

Press ● to start.

- Other channels cannot be selected while recording is in progress.

■ To stop recording in progress

Press ■ to stop.

■ To play back or delete the recorded contents

TV programmes recorded by One Touch Recording can be played back in Media Player.

1. Display icons of the feature with APPS
2. Select Recorded TV with △ / ▽ / ◁ / ▷ and press OK to access

   → Media Player > Recorded TV mode

- Even if One Touch Recording is in progress, you can play back all the contents. (Depending on the USB HDD, playback may not be possible or the recording may not work properly during playback.)

Rewind LIVE TV

Records the current programme to the USB HDD constantly within the maximum recordable time.

- Confirm the remote control code is “73”.

→ Watching > External equipment > Operating with TV’s remote control

1. Display the menu with MENU
2. Select Setup > Recording Setup > Rewind LIVE TV with △ / ▽ and press OK to access
3. Select Auto with △ / ▽ to start Rewind LIVE TV

- When you select Auto, recording will start automatically.
- This recording will not start if another recording is in progress, TV signal condition is bad or there are no images displayed.

■ To operate Rewind LIVE TV

- To pause

  ⏸

- To search backward (up to 90 minutes)

  ◀◀

- After pausing or searching backward, the following buttons are available for operation.

  ◁ : Search backward

  ▷ : Search forward

  ▽ : Return to the current programme

  OK : Playback / Pause

  ◀◀ ▶▶ : Search backward / forward

  ⏸ : Pause / Resume

  ▶ : Playback

  ■ : Return to the current programme

■ To stop Rewind LIVE TV

1. Display the menu with MENU
2. Select Setup > Recording Setup > Rewind LIVE TV with △ / ▽ and press OK to access
3. Select Off with △ / ▽ to stop Rewind LIVE TV

- If you stop Rewind LIVE TV, the recorded content for Rewind LIVE TV will be deleted.
- Rewind LIVE TV will be stopped and the recorded content will be deleted automatically in the following conditions: (Even if Rewind LIVE TV stops for the following conditions, as long as the setting is Auto, a new recording will start automatically in a condition that makes the recording available.)
  - Other channels selected
  - Locked channel selected
  - Invalid channel selected
  - No TV signal
  - When another recording starts
  - When the TV enters Standby or is turned off

Timer Programming

Setting timer programming

The Timer Programming menu allows you to select programmes that you want to be reminded to watch or record to the USB HDD.

- Not valid in Analogue mode

1. Display the TV Selection screen with TV
2. Select the mode with △ / ▽ and press OK to set

   freesat (UK only) / DVB / Other Sat. (UK only) / Satellite (Ireland only)
3. Display the menu with MENU
4. Select Timer > Timer Programming with △ / ▽ and press OK to access

■ Set timer programming event details

1. Press OK to start making the settings
2. Select USB HDD Rec. / Reminder with △ / ▽

   USB HDD Rec.:

   Records the programme to the USB HDD.

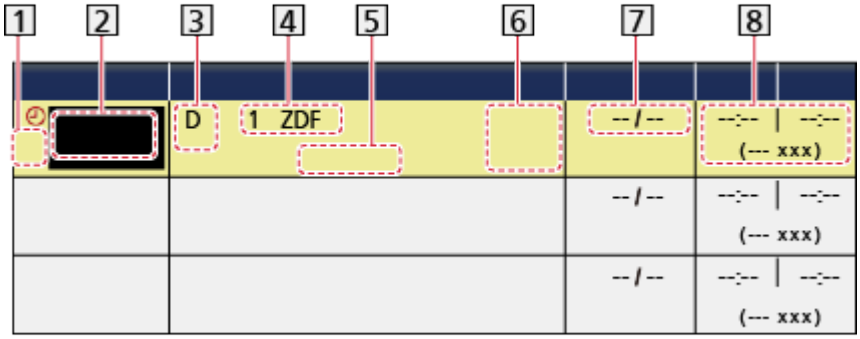
   When the start time comes, the channel may be switched automatically and the video and audio signals may be output. 2 minutes before the starting time, a reminder message may appear if you are watching TV.

   Reminder:

   Reminds you to watch the programme.

   When you are watching TV, a reminder message appears 2 minutes before the starting time. Press OK to switch to the programmed channel.
3. Select the item (channel, date and starting / ending time) with ◁ / ▷ and set 4 / 7 / 8 with △ / ▽
   - 4 and 8 can also be entered with numeric buttons.

(Example)



1 !: Overlapped timer programming events

2 Function

(USB HDD Rec. / Reminder)

3 TV mode

- For UK
  - : freesat
  - D : DVB
  - S : Other Sat.
- For Ireland
  - D: DVB
  - S: Satellite

– You cannot change the mode within the menu.

4 Channel position and name

5 <TIMER>: Timer Programming

6 STTL: Displays subtitles (if available)

– Press (yellow) to indicate subtitles and press again to remove them.

– For Reminder

7 Date (You can set one day ahead with △, select daily or weekly with ▽)

– Daily Sun-Sat: Sunday to Saturday

– Daily Mon-Sat: Monday to Saturday

– Daily Mon-Fri: Monday to Friday

– Weekly Sat / Fri / Thu / Wed / Tue / Mon / Sun: Same time on the same day every week

8 Starting time / Ending time / Duration (automatic display)

4. Store with OK

■ Guide link programming

Guide : Guide link programming - Programmes according to the TV Guide signal

S/P : Split Programme

→ Watching > TV Guide > Guide link programming

- UK only
- Guide link programming is Timer Programming which is controlled by information from the TV Guide; if programme start and end times are changed by the broadcaster, the timer programming event will follow the change.

  A Split Programme programming is a Guide link programming which is interrupted by one or more other programmes. Note that Guide link programming (including Split Programme programming) only works reliably if correct information is received from broadcasters.

Editing timer programming

1. Display the menu with MENU
2. Select Timer > Timer Programming with △ / ▽ and press OK to access
3. Select the event with △ / ▽

- To change a timer programming event

  OK

  – Correct as necessary.

  → Recording > Timer Programming > Setting timer programming

- To delete a timer programming event

  1) Press (red)

  2) Press OK to delete

- To display subtitles (if available)

  (yellow)

  – Press again to remove subtitles.

  – For Reminder

- To cancel a timer programming event temporarily

  (blue)

  – Press again to stop cancelling.

■ To stop recording

1. Press ■
2. Select the programme with △ / ▽ and press OK to access (when 2 recordings are in progress)
3. Select Yes with ◁ / ▷ and press OK to stop

■ To play back or delete the recorded contents

TV programmes recorded on the USB HDD with this TV can be played back in Media Player.

1. Display icons of the feature with APPS
2. Select Recorded TV with △ / ▽ / ◁ / ▷ and press OK to access

   → Media Player > Recorded TV mode

- The recorded content may not be played back properly while 2 recordings are in progress.

Note

- TV Guide may also be used to set timer programming event.

  → Watching > TV Guide > Timer Programming
- Timer Programming can store up to 15 events.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- For recording using Timer Programming, the TV must be either on or in Standby. For reminders to be displayed, the TV must be on.
- Depending on the progress of recording, analogue channel may not be selected.
- Recording an encrypted (copy-protected) programme may not be possible.
- 2 minutes before the starting time, a reminder message may appear if you are watching TV.
  - To remove the message and start the programming, press OK.
  - To cancel the programming, press EXIT.
- LED will turn to orange in Standby mode if Timer Programming is set.
- Timer Programming reminder messages will remain displayed until one of the following occurs:
  - You press OK to view the programme or EXIT to cancel the reminder.
  - The timer programming event that the reminder is set for ends.

- “!” identifies that three or more timer programming events are overlapped. USB HDD Rec. is given priority over Reminder. As for the overlapped recording events, the first event starts and finishes as programmed. The next event can then start.
- The recording of Timer Programming may automatically change the channel to the programmed channel a few seconds before the starting time.
- The recording of Timer Programming will be performed even if the TV is in Rewind LIVE TV recording. In this case, Rewind LIVE TV recording will be cancelled.

  → Recording > Recording current programme > Rewind LIVE TV
- For more information of the USB HDD

  → Recording > Technical information

Technical information

USB HDD

■ USB HDD

(for recording the digital TV programmes with this TV)

- The capacity of USB HDD that works with this TV is from 160 GB to 3 TB.
- Connect the USB HDD to the socket outlet to record and play back properly with this TV.
- Use the USB HDD formatted with this TV.

  → Recording > USB HDD setup > Setting for USB HDD
- Regarding performance, not all USB HDDs are guaranteed. Check the USB HDDs that have been tested for compatibility with this TV at the following website. (English only)

  http://panasonic.net/viera/support

= Note =

- Data modified with a PC may not be displayed.
- Do not remove the device while the TV is accessing data. Otherwise this can damage the device or TV.
- Do not touch the pins on the device.
- Do not subject the device to a high pressure or impact.
- Insert the device in the correct direction. Otherwise this can damage the device or TV.
- Electrical interference, static electricity, or erroneous operation may damage the data or device.

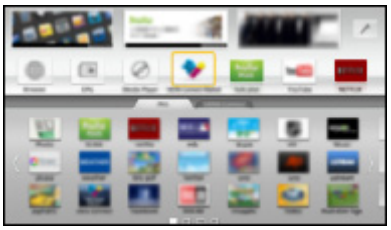
Internet service

Internet content

Information

You can access some specific websites supported by Panasonic, and enjoy internet contents such as videos, games, communication tools, etc. from APPS List.

(Example)



- To enable this function, you need a broadband network environment. Ensure the network connections and network settings are completed.

→ Internet service > Network connections

→ Internet service > Network settings

■ freesat

freesat may give you access to the interactive services and features through an internet connection.

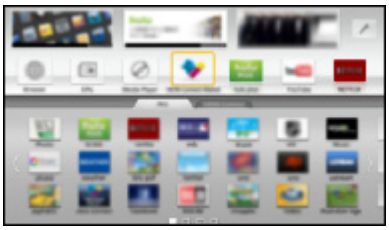
- Please contact broadcasters for availability of services.
- UK only

Selecting internet content

1. Display APPS List with APPS
   - For details of APPS List

     → Functions > APPS List
   - Depending on the usage conditions, it may take a while to read all the data.
2. Select the desired item with △ / ▽ / ◁ / ▷ and press OK to access

   (Example)



   - To return to APPS List

     APPS
   - To exit APPS List

     EXIT
   - You may operate the internet contents with the free cursor and Voice Control function of the VIERA Touch Pad Controller (supplied).

     → Functions > Voice Control
   - You can connect a keyboard and a gamepad for character input and playing games in the applications. You can also use the keyboard or gamepad for TV operation as well as for APPS List.

     → Functions > Bluetooth devices

     → Functions > Keyboard / Gamepad

Note

- If you cannot access the internet contents, check the network connections and settings.

  → Internet service > Network connections

  → Internet service > Network settings

- APPS List is subject to change without notice.
- Not all the features of the websites are available.
- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you will not be able to use APPS List. You can update the software later manually.

  → Internet service > Network settings > Software Update

- The services through APPS List are operated by their respective service providers and such service may be discontinued either temporarily or permanently without notice. Therefore, Panasonic will make no warranty for the contents or the continuity of the services.
- Some contents may be inappropriate for some viewers.
- Some contents may only be available for specific countries and may be presented in specific languages.
- Depending on the connection environment, the internet connection may be slow or may not be successful.
- During the operation, audio signal is output from DIGITAL AUDIO and HDMI2 (ARC function) terminals. But no video signals are output. To use HDMI2 with ARC function, connect an amplifier that has ARC function and set to use theatre speakers.

  → Functions > VIERA Link “HDAVI Control™”

Network connections

Internet connection

To use internet service, you need a broadband network environment.

- If you do not have any broadband network services, please consult your retailer for assistance.
- Dial-up internet connections cannot be used.
- Required speed (effective): at least 1.5 Mbps for SD (Standard Definition) and 6 Mbps for HD (High Definition) picture quality, respectively. If the transfer speed is not enough, contents may not be played back properly.

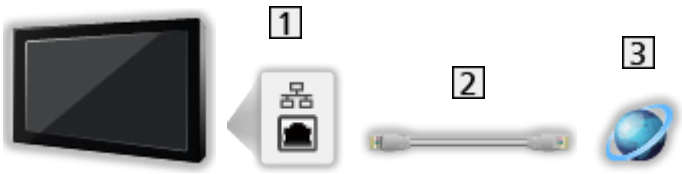
■ Wireless connection

1 Built-in wireless LAN (Rear of the TV)

2 Access point

3 Internet environment

■ Wired connection



1 ETHERNET terminal

2 LAN cable (Unshielded)

- Use the Unshielded Twist Pair (UTP) LAN cable.

3 Internet environment

Note

- Ensure to use a LAN straight cable.
- Set up and connect equipment required for the network environment. You cannot make such settings on this TV. Read the manual of the equipment.
- If your modem has no broadband router functions, use a broadband router.
- If your modem has broadband router functions but there are no vacant ports, use a hub.
- Ensure that the broadband routers and hubs are compatible with 10BASE-T / 100BASE-TX.
- If you use the equipment compatible only with 100BASE-TX, category 5 or later LAN cables are required.
- Contact your Internet Service Provider (ISP) or telecommunications company for further assistance regarding the network equipment.
- Confirm the terms and conditions of the contracts with your Internet Service Provider (ISP) or telecommunications company. Depending on the contracts, additional fees may be charged or multiple connections to the internet may be impossible.
- Turn the TV off, and then on again when changing or making the network connection again.

Network settings

Network Connection

Ensure the connections are completed before starting network setup.

→ Internet service > Network connections

■ Quick setup - Wireless

1. Display the menu with MENU
2. Select Network > Network Connection with △ / ▽ and press OK to access
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select Quick setup with ◁ / ▷ and press OK to access
   - When the LAN cable is connected, wired setup will be done automatically.
4. Select your desired access point with △ / ▽ and press OK to access
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)

     1) Select Easy setup with Push button with △ / ▽ and press OK to access

     2) Press the WPS button on the access point until the light flashes

     3) Connect the TV with the access point with OK

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.
   - It is recommended to select the encrypted access point.
5. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set
   - You can set characters using numeric buttons.

     1 2 3
     4 5 6
     7 8 9
     0
   - Press BACK/RETURN to store
6. Automatically setup is done and the Network Status screen is displayed

→ Internet service > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set

- To set manually

  → Internet service > Network settings > Custom - Wireless

■ Quick setup - Wired

1. Display the menu with MENU
2. Select Network > Network Connection with △ / ▽ and press OK to access
3. Select Quick setup with ◁ / ▷ and press OK to access
4. Automatically setup is done and the Network Status screen is displayed

   → Internet service > Network settings > Network Status

5. Select Exit with ◁ / ▷ and press OK to set

- To set manually

  → Internet service > Network settings > Custom - Wired

Custom - Wireless

Ensure the connections are completed before starting network setup.

→ Internet service > Network connections

1. Display the menu with MENU
2. Select Network > Network Connection > Custom > Wireless with △ / ▽ / ◁ / ▷ and press OK to access
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select your desired access point with △ / ▽ and press OK to access
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)

     1) Press (red)

     2) Press the WPS button on the access point until the light flashes

     3) Connect the TV with the access point with OK

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.
   - For WPS(PIN)

     1) Press (green)

     2) Enter the PIN code to the access point

     3) Connect the TV with the access point with OK
   - For Manual

     1) Press (yellow)

     2) You can set up SSID, security type, encryption type, and encryption key manually

     3) Follow the on-screen instructions and set manually

     – When you use 11n (5 GHz) for the wireless system between the built-in wireless LAN and access point, select AES for the encryption type.
   - To search access points again

     (blue)
   - To display / hide information of the highlighted access point

     i
   - It is recommended to select the encrypted access point.

4. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set
   - You can set characters using numeric buttons.

   - Press BACK/RETURN to store
5. The VIERA Name/IP/DNS Settings screen is displayed

VIERA Name

- You can set your favourite name for this TV.
- This name will be used as the name of this TV on the screen of the other network equipment.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

Proxy Settings

- It is not required for normal household use.
- Some internet services may not be available depending on the proxy settings.

  Proxy:

  This is the address of the relay server connected between the browser and the target server and sends data to the browser.

  1) Select Proxy with △ / ▽ and press OK to access
  2) Enter the address with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

  3) Press BACK/RETURN to store

Proxy Port:

This number is also specified by the provider with the Proxy address.

1) Select Proxy Port with △ / ▽

2) Enter the number with numeric buttons

3) Press BACK/RETURN to store

---

6. Select Network Status with △ / ▽ and press OK to access

   → Internet service > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set

Custom - Wired

Ensure the connections are completed before starting network setup.

→ Internet service > Network connections

1. Display the menu with MENU
2. Select Network > Network Connection > Custom > Wired with △ / ▽ / ◁ / ▷ and press OK to access
3. The VIERA Name/IP/DNS Settings screen is displayed

VIERA Name

- You can set your favourite name for this TV.
- This name will be used as the name of this TV on the screen of the other network equipment.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

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This is the address of the relay server connected between the browser and the target server and sends data to the browser.

1) Select Proxy with △ / ▽ and press OK to access
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3) Press BACK/RETURN to store

Proxy Port:

This number is also specified by the provider with the Proxy address.

1) Select Proxy Port with △ / ▽
2) Enter the number with numeric buttons

3) Press BACK/RETURN to store

---

4. Select Network Status with △ / ▽ and press OK to access

   → Internet service > Network settings > Network Status

5. Select Exit with ◁ / ▷ and press OK to set

Network Status

Displays and checks the network status (MAC Address, current network settings, etc.).

1. Display the menu with MENU
2. Select Network > Network Status with △ / ▽ and press OK to access
3. Automatically testing is done and the Network Status screen is displayed

   Try Again:

   Performs automatic testing of the network connection for the TV and displays the current status again.

   Status Details:

   Displays the detailed network status (SSID, security type, encryption type, etc.).

- For more information of the network connection, select Help.

TV Remote App Settings

Sets to control the TV with the equipment (smartphone, etc.) connected to your network.

→ Home network > Network settings > TV Remote App Settings

Network Link Settings

Sets to control the TV with devices connected to the network.

→ Home network > Network settings > Network Link Settings

Software Update

Accesses the specific website to update the TV's software if any updates are available.

1. Display the menu with MENU
2. Select Network > Software Update with △ / ▽ and press OK to access
3. Follow the on-screen instructions

New Software Message

Selects whether to give a notification message when new software is found via network or not.

1. Display the menu with MENU
2. Select Network > New Software Message with △ / ▽ and press OK to access
3. Select On / Off with △ / ▽ and press OK to set

Home network

DLNA

Information

This TV is a DLNA Certified™ product.

DLNA® (Digital Living Network Alliance) is a standard that makes DLNA Certified digital electronics easier and more convenient to use on a home network. To learn more, visit www.dlna.org.

- To enable this function, connect this TV to your home network.

Home network > Network connections

Home network > Network settings

■ Playback of sharing contents stored in the media server

Store photos, videos or music contents into the DLNA Certified media server (for example, PC with Windows 7 / Windows 8 installed, DIGA Recorder, etc.) connected to your home network. And then you can enjoy these contents on this TV.

(Example)

- For watching and operating contents on this TV

Home network > DLNA > Using DLNA

- For supported file formats

Home network > Technical information

● To use a PC as a media server

Prepare the PC with Windows 7 / Windows 8 or ensure the server software is installed on the PC. “Windows 7 / Windows 8” and “Twonky 7 (installed on the PC with Windows XP or Mac)” are the server software that has been tested for compatibility with this TV (as of November, 2012). Any other server software has not been tested with this TV, therefore compatibility and performance cannot be assured.

- Windows 7 / Windows 8

  The setup for homegroup settings of Windows 7 / Windows 8 is required. For details, refer to the help functions of Windows 7 / Windows 8.

- Twonky

  “Twonky” is the product of PacketVideo Corporation.

  To obtain the Installation Guides for installing and setting “Twonky”, visit the website of TwonkyMedia.

  Additional fees may be charged to obtain server software.

= Note =

- For more information about the server software, please consult each software company.
- When server software for the media server is installed on the PC, the data on the PC may be at risk of being accessed by other people. Please take care of the settings and connections under the network circumstances in office, hotel or even at home when not using a router.

● To use a DLNA compatible DIGA Recorder as a media server

By connecting a DLNA compatible DIGA Recorder to your home network, you can control it as one of the media servers.

- Please read the manual of your DIGA Recorder to check if the recorder is compatible with DLNA.

■ Playback of sharing contents on this TV with the DMC (Digital Media Controller) network equipment

You can enjoy contents stored in the media server by controlling with the DMC network equipment (smartphone, PC with Windows 7 / Windows 8 installed, etc.) connected to your home network.

- To use this function with your smartphone or Windows 7 / Windows 8, set TV Remote App Settings of this TV.

  → Home network > Network settings > TV Remote App Settings

  And you need to install the application for controlling VIERA on your smartphone. For information of the application (English only):

  http://panasonic.net/viera/support

  For the operations, refer to the support information of the application.

- "Windows 7 / Windows 8" are the OS that have been tested for compatibility of this TV (as of November, 2012). For the operations, refer to the help functions of Windows 7 / Windows 8.

■ Sharing the TV programme or contents of this TV with another piece of network equipment

You can enjoy the current digital TV programme or the contents*1 of this TV on the other DLNA Certified VIERA*2, your smartphone, etc. connected to your home network. You can also select the channel and watch TV on your smartphone*3.

For example, watching the TV programme on your smartphone in the other room, etc.

*1 : Available contents:

- Contents that can be played back in Media Player of this TV and another piece of network equipment
- TV programmes recorded on USB HDDs with this TV

*2 : DLNA Certified VIERA manufactured before the year 2009 may not be available. The compatibility with future products is not guaranteed.

- To use this function with another DLNA Certified VIERA, set Network Link Settings of this TV.

  → Home network > Network settings > Network Link Settings

*3 : To use this function with your smartphone, you need to install the application for controlling VIERA in your smartphone. For information of the application (English only):

http://panasonic.net/viera/support

For the operations, refer to the support information of the application.

- Sharing the current programme may not be available when selecting radio channels, encrypted (copy-protected) programmes or when the broadcast prohibits the output of video and audio.

= Note =

- To use this function, turn this TV on.
- This function is available only with 1 piece of other equipment.
- You may be able to control this TV to turn off the TV display and mute the sound using your smartphone. For details, refer to the support information of the application.
- This function may not be available in the following conditions of this TV:
  - While the recording is in progress
  - When in internet service
  - When accessing the media server
  - When the data service is active
- Selecting the channel or TV mode on your smartphone may not be available while the recording is in progress.

Using DLNA

To use DLNA® features, ensure the preparations of the media server, network connections and network settings are completed.

Home network > DLNA > Information

Home network > Network connections

Home network > Network settings

1. Display APPS List with APPS
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access
3. Select one of the media servers with △ / ▽ and press OK to access
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     i
4. Select the file with △ / ▽ and press OK to access

   (Example)

   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     i

= Note =

- Non-playable files are also listed but cannot be selected.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

Watching > External equipment > Operating with TV’s remote control

Network connections

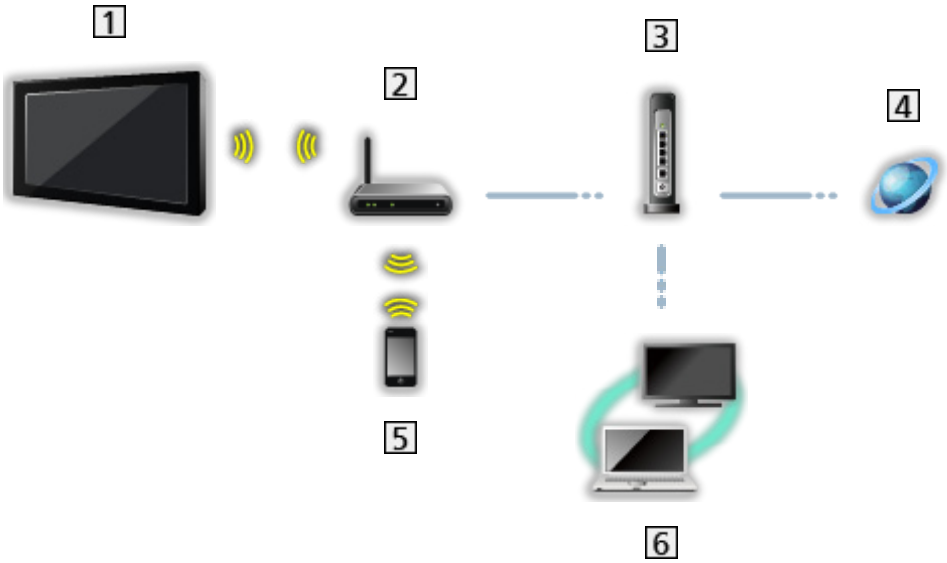
DLNA connection

To use DLNA features, you need a home network environment and you can operate the features without a broadband network environment.

- To use internet service, you need a broadband network environment.

→ Internet service > Network connections > Internet connection

■ Wireless connection (For DLNA and internet service)



1 Built-in wireless LAN (Rear of the TV)

2 Access point

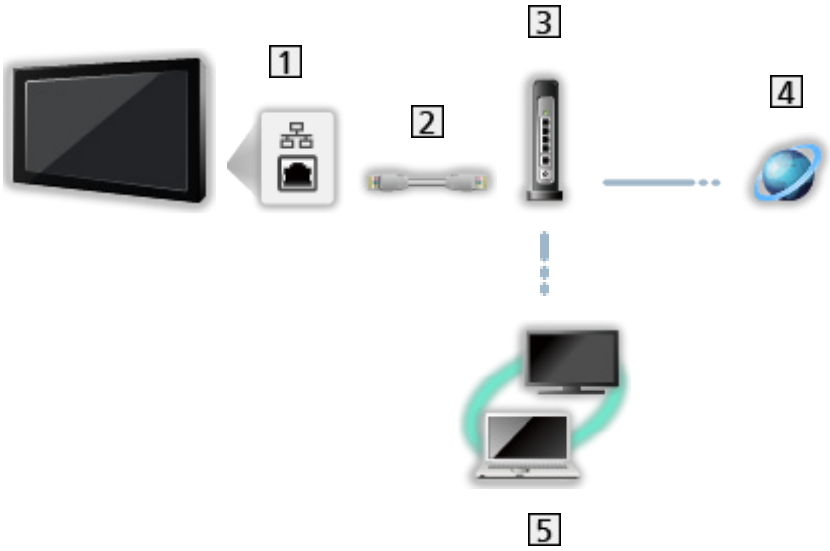
3 Hub or Router

4 Internet environment

5 Smartphone

6 DLNA Certified media server

■ Wired connection (For DLNA and internet service)



1 ETHERNET terminal

2 LAN cable (Unshielded)

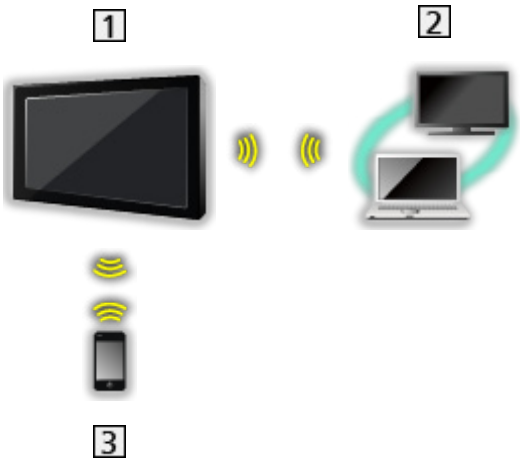
- Use the Unshielded Twist Pair (UTP) LAN cable.

3 Hub or Router

4 Internet environment

5 DLNA Certified media server

■ Wireless connection (For DLNA)



1 TV

- To use the TV as a wireless access point

→ Home network > Network settings > Custom - Wireless Access Point

2 DLNA Certified media server

3 Smartphone

Note

- Ensure to use a LAN straight cable.
- Set up and connect equipment required for the network environment. You cannot make such settings on this TV. Read the manual of the equipment.
- If you use the equipment compatible only with 100BASE-TX, category 5 or later LAN cables are required.
- Turn the TV off, and then on again when changing or making the network connection again.

Network settings

Network Connection

Ensure the connections are completed before starting network setup.

Home network > Network connections

■ Quick setup - Wireless

1. Display the menu with MENU
2. Select Network > Network Connection with △ / ▽ and press OK to access
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select Quick setup with ◁ / ▷ and press OK to access
   - When the LAN cable is connected, wired setup will be done automatically.
4. Select your desired access point with △ / ▽ and press OK to access
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)

     1) Select Easy setup with Push button with △ / ▽ and press OK to access

     2) Press the WPS button on the access point until the light flashes

     3) Connect the TV with the access point with OK

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.
   - It is recommended to select the encrypted access point.
5. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set
   - You can set characters using numeric buttons.

     1 2 3
     4 5 6
     7 8 9
     0
   - Press BACK/RETURN to store
6. Automatically setup is done and the Network Status screen is displayed

Home network > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set

- To set manually

  → Home network > Network settings > Custom - Wireless

■ Quick setup - Wired

1. Display the menu with MENU
2. Select Network > Network Connection with △ / ▽ and press OK to access
3. Select Quick setup with ◁ / ▷ and press OK to access
4. Automatically setup is done and the Network Status screen is displayed

   → Home network > Network settings > Network Status

5. Select Exit with ◁ / ▷ and press OK to set

- To set manually

  → Home network > Network settings > Custom - Wired

Custom - Wireless

Ensure the connections are completed before starting network setup.

→ Home network > Network connections

1. Display the menu with MENU
2. Select Network > Network Connection > Custom > Wireless with △ / ▽ / ◁ / ▷ and press OK to access
   - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
3. Select your desired access point with △ / ▽ and press OK to access
   - Available Wireless Networks are displayed automatically.

     : Encrypted access point
   - For WPS(Push button)

     1) Press (red)

     2) Press the WPS button on the access point until the light flashes

     3) Connect the TV with the access point with OK

     – WPS: Wi-Fi Protected Setup™

     – If the connection has failed, check the settings and positions of your access point. And then, follow the on-screen instructions.
   - For WPS(PIN)

     1) Press (green)

     2) Enter the PIN code to the access point

     3) Connect the TV with the access point with OK
   - For Manual

     1) Press (yellow)

     2) You can set up SSID, security type, encryption type, and encryption key manually

     3) Follow the on-screen instructions and set manually

     – When you use 11n (5 GHz) for the wireless system between the built-in wireless LAN and access point, select AES for the encryption type.
   - To search access points again

     (blue)
   - To display / hide information of the highlighted access point

     i
   - It is recommended to select the encrypted access point.

4. Enter the encryption key of the access point with △ / ▽ / ◁ / ▷ and press OK to set
   - You can set characters using numeric buttons.

   - Press BACK/RETURN to store
5. The VIERA Name/IP/DNS Settings screen is displayed

VIERA Name

- You can set your favourite name for this TV.
- This name will be used as the name of this TV on the screen of the other network equipment.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

Proxy Settings

- It is not required for normal household use.
- Some internet services may not be available depending on the proxy settings.

  Proxy:

  This is the address of the relay server connected between the browser and the target server and sends data to the browser.

  1) Select Proxy with △ / ▽ and press OK to access
  2) Enter the address with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

  3) Press BACK/RETURN to store

Proxy Port:

This number is also specified by the provider with the Proxy address.

1) Select Proxy Port with △ / ▽

2) Enter the number with numeric buttons

3) Press BACK/RETURN to store

---

6. Select Network Status with △ / ▽ and press OK to access

   → Home network > Network settings > Network Status

7. Select Exit with ◁ / ▷ and press OK to set

Custom - Wired

Ensure the connections are completed before starting network setup.

→ Home network > Network connections

1. Display the menu with MENU
2. Select Network > Network Connection > Custom > Wired with △ / ▽ / ◁ / ▷ and press OK to access
3. The VIERA Name/IP/DNS Settings screen is displayed

VIERA Name

- You can set your favourite name for this TV.
- This name will be used as the name of this TV on the screen of the other network equipment.

Acquire IP Address / Acquire DNS Address

- Auto is recommended.
- Available settings are displayed automatically.
- To set manually, select and set IP Address / Subnet Mask / Default Gateway / DNS Address.

Proxy Settings

- It is not required for normal household use.
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  Proxy:

  This is the address of the relay server connected between the browser and the target server and sends data to the browser.

  1) Select Proxy with △ / ▽ and press OK to access
  2) Enter the address with △ / ▽ / ◁ / ▷ or numeric buttons, and press OK to set

  3) Press BACK/RETURN to store

Proxy Port:

This number is also specified by the provider with the Proxy address.

1) Select Proxy Port with △ / ▽

2) Enter the number with numeric buttons

3) Press BACK/RETURN to store

---

4. Select Network Status with △ / ▽ and press OK to access

   Home network > Network settings > Network Status

5. Select Exit with ◁ / ▷ and press OK to set

Custom - Wireless Access Point

You can use the TV as a wireless access point and connect the network equipment without an access point.

- Confirm the PIN code, network settings of the equipment before starting setup. For details, read the manual of the equipment.

1. Display the menu with MENU
2. Select Network > Network Connection > Custom > Wireless Access Point with △ / ▽ / ◁ / ▷ and press OK to access
3. Select Connect to device in WPS with △ / ▽ and press OK to access
   - To set manually, select Change settings. (see below)
4. Select and set WPS(Push button) / WPS(PIN) with △ / ▽ and press OK to access

   WPS(Push button):

   Set the equipment to WPS (Push button) mode. For details, read the manual of the equipment.

   WPS(PIN):

   Enter the PIN code of the equipment.

   - If the connection has failed, check the settings and positions of the equipment. And then, follow the on-screen instructions.

■ Change settings

You can set up Network name(SSID), Encryption key, Wireless type and Channel setting method manually.

Follow the on-screen instructions and set manually.

- Set Reset settings to reset the items of Change settings.

= Note =

- You cannot connect the internet service while the TV is set to Wireless Access Point.
- You can connect up to 7 devices. But the transfer rate will vary according to communication environment or the numbers of connected equipment.
- To confirm the current network settings

  → Home network > Network settings > Network Status
- Ensure the equipment to connect supports WPS for this setup.
- WPS: Wi-Fi Protected Setup™

Network Status

Displays and checks the network status (MAC Address, current network settings, etc.).

1. Display the menu with MENU
2. Select Network > Network Status with △ / ▽ and press OK to access
3. Automatically testing is done and the Network Status screen is displayed

   Try Again:

   Performs automatic testing of the network connection for the TV and displays the current status again.

   Status Details:

   Displays the detailed network status (SSID, security type, encryption type, etc.).

- For more information of the network connection, select Help.

TV Remote App Settings

Sets to control the TV with the equipment (smartphone, etc.) connected to your network.

1. Display the menu with MENU
2. Select Network > TV Remote App Settings with △ / ▽ and press OK to access
3. Select one of the following items with △ / ▽ and press OK to access

---

TV Remote

(On / Off)

Enables to control the TV from the network equipment (smartphone, etc.).

- You need to install the application for controlling VIERA on your smartphone. For information of the application (English only):

  http://panasonic.net/viera/support

  For the operations, refer to the support information of the application.

Device to upload contents

Selects device to upload contents from the network equipment (smartphone, etc.).

= Note =

- Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.

Network Link Settings

Sets to control the TV with devices connected to the network.

1. Display the menu with MENU
2. Select Network > Network Link Settings with △ / ▽ and press OK to access
3. Select one of the following items with △ / ▽ and press OK to access

   DLNA Server / Registration Type / Remote Device List
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

DLNA Server

(On / Off)

Enables to share the TV programme or contents of this TV with the network equipment (DLNA Certified VIERA, etc.).

- To use this function with another VIERA, select the name of this TV from the DLNA server list of another VIERA, and then select the content to share. Also read the manual of another VIERA.
- To use this function with your smartphone, you need to install the application for controlling VIERA on your smartphone. For information of the application (English only):

  http://panasonic.net/viera/support

  For the operations, refer to the support information of the application.

Registration Type

(Auto / Manual)

Selects the type to restrict the access to this TV for each piece of equipment on the home network.

Auto:

All available equipment on the home network is accessible. (maximum 16 pieces of equipment)

Manual:

Sets the restrictions for each piece of equipment in the Remote Device List.

Remote Device List

Lists the equipment accessible to this TV on the home network.

= Note =

- Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.

Software Update

Accesses the specific website to update the TV's software if any updates are available.

1. Display the menu with MENU
2. Select Network > Software Update with △ / ▽ and press OK to access
3. Follow the on-screen instructions

New Software Message

Selects whether to give a notification message when new software is found via network or not.

1. Display the menu with MENU
2. Select Network > New Software Message with △ / ▽ and press OK to access
3. Select On / Off with △ / ▽ and press OK to set

Photos

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

→ Home network > DLNA > Information

→ Home network > Network connections

→ Home network > Network settings

1. Display APPS List with APPS
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access
3. Select one of the media servers with △ / ▽ and press OK to access
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     i
4. Select the file with △ / ▽ and press OK to access
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     i

= Note =

- Non-playable files are also listed but cannot be selected.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

  → Watching > External equipment > Operating with TV’s remote control

Viewing photo

■ Playback

Photos are displayed one at a time.

- To operate Single view

  ◁ : To the previous photo

  ▷ : To the next photo

  ▽ : Stop (return to list)

  OK : Slideshow

- To display / hide the operation guide

  i

- To rotate 90°

  (blue)

- To return to list

  BACK/RETURN

Using slideshow

Slideshow ends when all photos within the list are viewed.

1. Select the file from the thumbnail of photos for the first view with △ / ▽ / ◁ / ▷
2. Start Slideshow with (red) and OK

- To display / hide the operation guide

  i

- To pause (return to Single view)

  OK

- To return to list

  BACK/RETURN

■ Slideshow Settings

Set up the settings for photo file operations on this TV.

1. Display the option menu with OPTION
2. Select Slideshow Settings with △ / ▽ and press OK to access
3. Select one of the following items with △ / ▽ and press OK to access

   Transition Effect / Auto Makeup / Interval / Repeat / Back Ground Music
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

Transition Effect

(Off / Fade / Dissolve / Motion / Random)

Selects the transition effect for switching the photo during the slideshow.

Fade:

The next photo fades in gradually.

Dissolve:

Each photo is dissolved when switching to the next photo.

Motion:

Each photo is displayed with an effect of enlarging, reducing, moving up or moving down.

Random:

The transition effect is selected at random.

Auto Makeup

(On / Off)

Automatically detects the face in the photo and improves luminance and contrast.

Interval

(Long / Normal / Short)

Selects slideshow interval.

- Not valid when Transition Effect is set to Motion

Repeat

(On / Off)

Slideshow repeat

Back Ground Music

(Off / Type1 / Type2 / Type3 / Type4 / Type5)

Selects the background music during Photo mode.

Videos

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

→ Home network > DLNA > Information

→ Home network > Network connections

→ Home network > Network settings

1. Display APPS List with APPS
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access
3. Select one of the media servers with △ / ▽ and press OK to access
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     i
4. Select the file with △ / ▽ and press OK to access
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     i

= Note =

- Non-playable files are also listed but cannot be selected.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

  → Watching > External equipment > Operating with TV’s remote control

■ Playback

If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.

- To operate playback

  △ : Manual skip

  – Press to skip forward approx. 30 seconds.

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback

- To display / hide the operation guide and information banner

  i

- To the previous content

  (red)

- To the next content

  (green)

- To change aspect

  1) Display Aspect Selection list with ASPECT

  2) Select the mode with △ / ▽ and press OK to set

     Aspect1:

     Displays the content enlarged without distortion.

     Aspect2:

     Displays the content full-screen.

     Original:

     Displays the content original size.

  – You can also change the mode pressing ASPECT. (Press repeatedly until you reach the desired mode.)

  – Aspect cannot be changed depending on the content.

- To return to list

  BACK/RETURN

Video Setup

Set up the settings for video file operations on this TV.

1. Display the option menu with OPTION
2. Select Video Setup with △ / ▽ and press OK to access
3. Select one of the following items with △ / ▽ and press OK to access

   Video Preview / Multi Audio / Dual Audio / Dual Mono Audio / Subtitle / Subtitle Text / Subtitle Language / Repeat

   - Menu items and selectable options vary depending on the content.
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

Video Preview

(On / Off)

Sets to start the preview of the title or scene in the thumbnail view.

- Images may not be displayed for an instant in the thumbnail view. Set the preview Off to solve this.

Multi Audio, Monaural Audio, Dual Mono Audio

Selects for selectable sound tracks (if available).

- It may take several seconds to change the sound.
- This function is available during playback.

Subtitle

Display / hide subtitles (if available).

- This function is available during playback.

Subtitle Text

Selects the font type to display subtitles correctly (if available).

- This function is available during playback.

Subtitle Language

Selects the language for subtitles (if available).

- This function is available during playback.

Repeat

(On / Off)

Playback repeat within the selected file

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO or HDMI2 (ARC function) terminal.

- To confirm or change the current sound status

  → Home network > Videos > Video Setup

1. Display the menu with MENU
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access
3. Select Auto / PCM with △ / ▽ and press OK to set

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO and HDMI2 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

Music

Selecting file

Ensure the preparations of the media server, network connections and network settings are completed.

Home network > DLNA > Information

Home network > Network connections

Home network > Network settings

1. Display APPS List with APPS
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access
3. Select one of the media servers with △ / ▽ and press OK to access
   - For the operations to access another TV, select the name of another TV from the displayed media server list.
   - To display / hide information of the highlighted media server

     i
4. Select the file with △ / ▽ and press OK to access
   - Depending on the condition of media server, you may need to select the folder before selecting the file.
   - To display / hide information of the highlighted file

     i

= Note =

- Non-playable files are also listed but cannot be selected.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

  Watching > External equipment > Operating with TV’s remote control

Playing music

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause / Playback

- To display / hide the operation guide

  i

- To the previous track

  (red)

- To the next track

  (green)

- To return to list

  BACK/RETURN

Music Setup

Set up the settings for music file operations on this TV.

1. Display the option menu with OPTION
2. Select Music Setup > Repeat with OK
3. Select Folder / One / Off with △ / ▽ and press OK to set

   Folder:

   Playback repeat within the selected folder

   One:

   Playback repeat of the selected one file

DIGA Recorder

Controlling DIGA Recorder

Ensure the preparations of the media server, network connections and network settings are completed.

→ Home network > DLNA > Information

→ Home network > Network connections

→ Home network > Network settings

1. Display APPS List with APPS
2. Select Media Server with △ / ▽ / ◁ / ▷ and press OK to access
3. Select DIGA with △ / ▽ and press OK to access
4. The screen of the DIGA Recorder will be displayed. You can control the functions of the DIGA Recorder with this TV's remote control according to the operation guide.

   (Example)

- Before operating, register this TV on the DIGA Recorder.
- For details, read the manual of the DIGA Recorder.

Technical information

Photo format

■ Supported Photo formats

- JPEG (.jpg, .jpeg, .mpo)

  Image resolution (pixel):

  8 × 8 to 30,719 × 17,279

  Sub-sampling:

  4:4:4, 4:2:2, 4:2:0

- DCF and EXIF standards
- Progressive JPEG is not supported.

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Video format

■ Supported Video formats

- AVCHD (.mts)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  Dolby Digital

- AVCHD Standard Ver. 2.0 (AVCHD 3D, AVCHD Progressive)
- The data may not be available if a folder structure on the device is modified.

- SD-Video (.mod)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, MPEG Audio

- SD-Video Standard Ver. 1.31 (Entertainment Video Profile)
- The data may not be available if a folder structure on the device is modified.

- AVI (.avi)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, ADPCM, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, LPCM, MPEG Audio, MP3, WMA, WMA Pro

- Some subtitles or chapter functions may not be available.

- MKV (.mkv)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3

- Some subtitles or chapter functions may not be available.

- ASF (.asf, .wmv)

  Video codec:

  MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MP3, WMA, WMA Pro

- Copy-protected files cannot be played back.

- MP4 (.f4v, .m4v, .mp4)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio, MP3

- This TV supports this container recorded with Panasonic products. For details, read the manual of the products.

- FLV (.flv)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  AAC, MP3

- 3GPP (.3gp, .3g2)

  Video codec:

  H.264 BP/MP/HP, MPEG4 SP/ASP

  Audio codec:

  AAC, HE-AAC

- PS (.mod, .mpg, .mpeg, .vob, .vro)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, LPCM, MPEG Audio

- TS (.mts, .m2ts, .tp, .trp, .ts, .tts)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio

■ Supported Subtitles formats

- MicroDVD, SubRip, TMPlayer (.srt, .sub, .txt)
  - The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.
  - If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: “.srt”, “.sub”, “.txt”.

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.
- Supported Video formats are different in Media Player and media server.

→ Media Player > Technical information > Video format

Music format

■ Supported Music formats

- MP3 (.mp3)

- AAC, Apple Lossless (.m4a)
  - Copy-protected files cannot be played back.

- WMA (.wma)
  - Copy-protected files cannot be played back.

- LPCM (.wav)

- FLAC (.flac)

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Media Player

Using Media Player

Information

Media Player allows you to enjoy photo, video or music recorded on an SD Card and a USB Flash Memory with this TV, and contents recorded with this TV to the formatted USB HDD.

(Example)

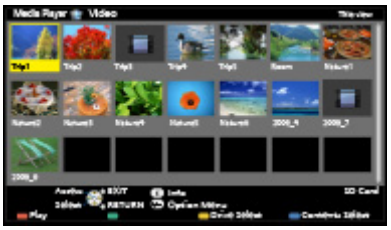


Photo mode:

Still pictures recorded with digital cameras will be displayed.

Video mode:

(For SD Card / USB Flash Memory) Moving pictures recorded with digital video cameras will be played back.

Recorded TV mode:

(For exclusive USB HDD) TV programmes recorded on the USB HDD with this TV will be played back.

Music mode:

Digital music data will be played back.

- During operation, audio signals are output from DIGITAL AUDIO and HDMI2 (ARC function) terminals, however, no video signals are output. To use HDMI2 with ARC function, connect an amplifier that has ARC function and set to use theatre speakers.

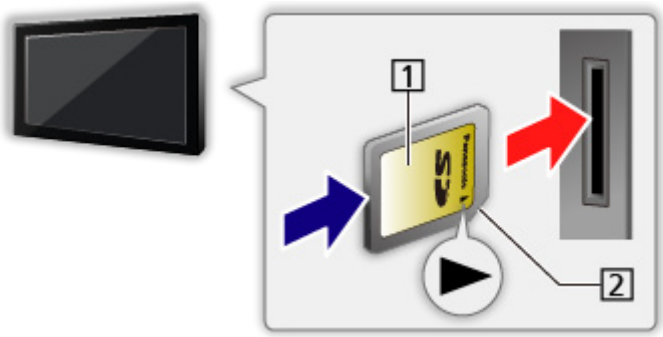
→ Functions > VIERA Link “HDAVI Control™”

- Date shows the date on which the recording was made with the recording equipment. “**/**/****” appears on a file on which recording date has not been recorded.
- Pictures may not appear correctly on this TV depending on the recording equipment used.
- Displaying may take some time when there are many files and folders.
- Partially degraded files may be displayed with reduced resolution.
- Picture setting may not work depending on the conditions.

- Folder and file names may be different from those on the digital camera or digital video camera used.

■ To insert or remove the SD Card

Gently insert the SD Card with the label surface facing front. Push the centre of the card until a click is heard. (To remove, push it again.)

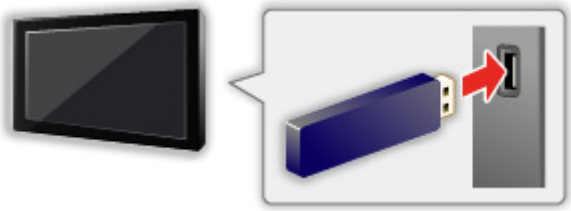


1 Label surface

2 Cutout

■ To insert or remove the USB Flash Memory

Insert or remove straight and completely.



- To remove the USB Flash Memory safely from the TV, perform Safely remove USB in USB Device Setup.

  → Settings > Setup > USB Device Setup

- Connect the USB Flash Memory to the USB 1, 2 or 3 port.

= Note =

- To connect the USB HDD

  → Recording > USB HDD setup

- Check the terminal type and devices are correct when connecting.
- For the information of the devices

  → Media Player > Technical information

- For supported file formats

  → Media Player > Technical information

Selecting device / mode

1. Insert the SD Card or USB Flash Memory to the TV
   - When you insert the SD Card, Media Player will start automatically.

   → Media Player > Using Media Player > Information

   - To play back contents in the USB HDD, ensure the connection and settings are completed.

     → Recording > USB HDD setup

2. Display APPS List with APPS
3. Select Media Player with △ / ▽ / ◁ / ▷ and press OK to access
4. Select the device with ◁ / ▷ and press OK to access
   - If two or more devices are not connected, this step will be skipped.
5. Select Photo / Video / Music / Recorded TV with ◁ / ▷ and press OK to access

   Photo

   → Media Player > Photo mode

   Video

   → Media Player > Video mode

   Music

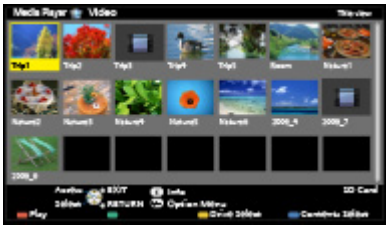
   → Media Player > Music mode

   Recorded TV

   → Media Player > Recorded TV mode

6. The thumbnail view will be displayed

   (Example)



- To display / hide information of the highlighted content

  i

= Note =

- You may also access each mode directly from APPS List.

  → Functions > APPS List > How to use

- Recorded TV is available for contents recorded on the USB HDD with this TV.
- Select the appropriate device and content for playing back each file.
- You can use the following buttons during playback. Confirm the remote control code is “73”.

  ◀◀ ⏮ ▶▶ ⏭ ▶ ■ ❚❚

  → Watching > External equipment > Operating with TV’s remote control

■ To change the device

You can change the current device to another device directly in the same mode when two or more available devices are connected.

1. Display the device selection screen with (yellow) while the thumbnail is displayed
2. Select the device with ◁ / ▷ and press OK to access

- Not valid in Recorded TV mode
  - To change the device in Recorded TV mode

    → Media Player > Recorded TV mode > Changing device

■ To change the mode

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

1. Display the contents selection screen with (blue) while the thumbnail is displayed
2. Select the contents with ◁ / ▷ and press OK to access

- The mode can be switched in the current device.

Photo mode

Selecting file

Select the file in the thumbnail view with △ / ▽ / ◁ / ▷ and press OK to start playback.

: Error display

- To change the size of photos in the thumbnail view
  1) Display the option menu with OPTION
  2) Select Change Size with △ / ▽ and press OK to change
- For supported file formats

  → Media Player > Technical information > Photo format

■ Thumbnail view

- To display / hide information of the highlighted content

  i
- To display Slideshow Settings

  (red)

  → Media Player > Photo mode > Using slideshow
- To Sort

  (green)
- To change the device

  (yellow)
- To change the contents

  (blue)

Viewing photo

■ Playback

- To operate Single view

  ◁ : To the previous photo

  ▷ : To the next photo

  ▽ : Stop (return to thumbnail)

  OK : Slideshow

- To display / hide the operation guide

  i

- To rotate 90°

  (blue)

- To return to thumbnail

  BACK/RETURN

Sorting photos

■ To sort by folder, recorded date or recorded month

1. Display the view selection in the thumbnail view with (green)
2. Select Folder view / Sort by Date / Sort by Month with △ / ▽ and press OK to set

   Folder view:

   Displays the thumbnail grouped by folder.

   - Files which are not in a folder will be collected to the folder named "/".

   Sort by Date / Sort by Month:

   Displays the thumbnail grouped by the same date or month.

   - The group of the photos without recorded dates is shown as Unknown.

- To return to the thumbnail of all photos

  1) Display the view selection in the thumbnail view with (green)

  2) Select All photos with △ / ▽ and press OK to set

Multi Shot 3D

This TV can create a 3D photo using a pair of photos in the SD Card and save it into the same SD Card.

- This TV can also create a 3D photo from photos in the USB Flash Memory, but cannot save it.
- This function is available with photos recorded on digital cameras.
- Depending on the photos you select, they may not be suitable for creating 3D photos, or creating 3D photos may not be possible. In this case, it is recommended to take a photo (for L) and then move your camera to the right approx. 5 cm and take another photo (for R).
- To view the created 3D photo with 3D effect, you need the 3D Eyewear.

1. Display the option menu in the thumbnail view with OPTION
2. Select Multi Shot 3D with △ / ▽ and press OK to access
3. Select two photos for L (left) and R (right) with △ / ▽ / ◁ / ▷ and ▬ (red)
   - You can only select photos of the same recorded date and the same pixels.
   - You may not be able to view the created 3D photo properly if you select photos for L and R in reverse.
4. Create the 3D photo with OK
   - If your selected photos are not suitable for the 3D photo, the error message will be displayed and you will return to the photo selection screen (step 3).
   - To save the 3D photo in the SD Card, press OK and follow the on-screen instructions.
   - After the photo is saved, the photo selection screen will be displayed (step 3). Select photos again to create another 3D photo or exit from Multi Shot 3D mode.

■ To enjoy the saved 3D photos

Saved 3D photos are displayed in the thumbnail view. Wear the 3D Eyewear and enjoy the 3D photos.

Using slideshow

Slideshow ends when all photos within the current thumbnail are viewed.

1. Select the file from the thumbnail of photos for the first view with △ / ▽ / ◁ / ▷
2. Start Slideshow with (red) and OK
   - To display / hide the operation guide

     i
   - To pause (return to Single view)

     OK
   - To return to thumbnail

     BACK/RETURN
   - You can change the back ground music by setting Back Ground Music in Slideshow Settings (see below).

■ Slideshow Settings

Set up the settings for Photo mode.

1. Display the option menu with OPTION
2. Select Slideshow Settings with OK
3. Select one of the following items with △ / ▽ and press OK to access

   Frame / Colour Effect / Transition Effect / Auto Makeup / Aspect / Burst Playback / Interval / Repeat / Back Ground Music
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

Frame

(Off / Multi / Collage / Drift (+ calendar) / Drift / Gallery (+ calendar) / Gallery / Cinema)

Selects the frame type of the slideshow.

Multi:

9 photos are displayed orderly at once.

Collage:

Each photo is displayed at a random position and random scale.

Drift (+ calendar) / Drift:

Photos are displayed with flow images.

- You can select whether to display the calendar or not. The month of calendar is changed with ◁ / ▷.

Gallery (+ calendar) / Gallery:

Various sizes of photos in the frames are displayed.

- You can select whether to display the calendar or not. The month of calendar is changed with ◁ / ▷.

Cinema:

Photos are displayed as old films (sepia tone).

Colour Effect

(Off / Sepia / Gray scale)

Selects the colour effect of photos in Single view and Slideshow.

- Not valid when Frame is set to Drift, Gallery or Cinema

Transition Effect

(Off / Fade / Dissolve / Motion / Random)

Selects the transition effect for switching photos during the slideshow.

Fade:

The next photo fades in gradually.

Dissolve:

Each photo is dissolved when switching to the next photo.

Motion:

Each photo is displayed with an effect of enlarging, reducing, moving up or moving down.

Random:

The transition effect is selected at random.

- This function is available when Frame is set to Off.

Auto Makeup

(On / Off)

Automatically detects the face in the photo and improves luminance and contrast.

Aspect

(Original / Zoom)

Selects enlarged or normal viewing in Single view and Slideshow.

- Not valid when Frame is set to Collage, Drift, Gallery, Cinema or when Transition Effect is set to Motion
- Depending on the photo size, the photo may not be fully enlarged to fill the screen (e.g. portrait style picture).

Burst Playback

(On / Off)

Selects whether to display burst photos in a fast-paced slideshow mode or not.

- Not valid when Frame is set to Drift, Gallery, Cinema or when Transition Effect is set to Motion

---

Interval

(Long / Normal / Short)

Selects slideshow interval.

- Not valid when Frame is set to Drift, Gallery, Cinema or when Transition Effect is set to Motion

---

Repeat

(On / Off)

Slideshow repeat

Back Ground Music

(Off / Type1 / Type2 / Type3 / Type4 / Type5 / User / Auto)

Selects the background music during Photo mode.

Type1 - 5:

Music files installed on this TV at the factory settings will be played back.

Auto:

Music files 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 played back.

User:

Music files in the device registered by yourself will be played back.

- If no music files have been registered or the device which had registered music files is removed, no sound will be played back.

● To register music

1) Select the music file with △ / ▽ and press OK to access
   - Depending on the condition of the device, select folders until you reach the desired music file.
2) Select File / Folder with △ / ▽ and press OK to set

   File:

   The selected music file will be registered.

   Folder:

   All the music files in the folder which contains the selected music file will be registered.

= Note =

- Picture quality may be degraded depending on the slideshow settings.
- Picture setting may not work depending on the slideshow settings.

Video mode

Selecting file

1. Select the title in the thumbnail view with △ / ▽ / ◁ / ▷

   : Error display

   : The file does not support thumbnail view.

   - The preview will start when the title / scene is highlighted in the thumbnail view if it supports a preview. To turn off the preview, set Video Preview to Off.

     → Media Player > Video mode > Video Setup

2. Start playback with (red)

   - If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.

- For supported file formats

  → Media Player > Technical information > Video format

■ Thumbnail view

- To display / hide information of the highlighted content

  i

- To start playback

  (red)

- To change the device

  (yellow)

- To change the contents

  (blue)

Watching video

■ Playback from the selected scene in the title (SD-Video or AVCHD)

Playback of the selected scene will start and continue until the end of the title.

1. Select the title with △ / ▽ / ◁ / ▷ and press OK to access
2. Select the scene with △ / ▽ / ◁ / ▷
3. Start playback with ▬ (red)

- The structure of titles and scenes may vary depending on the digital video camera used.
- To repeat playback

  → Media Player > Video mode > Video Setup

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback
- To jump to the specified time point

  1) Display the time seek bar with OK

  2) While the time seek bar is displayed

     Press ◁ / ▷ :

     Search approx. 10 seconds

     Press and hold ◁ / ▷ :

     Search rapidly

  3) Jump to the specified time point with OK
- To display / hide the operation guide and information banner

  i
- To the previous title / scene

  ▬ (red)
- To the next title / scene

  ▬ (green)

- To change aspect

  1) Display Aspect Selection list with ASPECT

  2) Select the mode with △ / ▽ and press OK to set

     Aspect1:

     Displays the content enlarged without distortion.

     Aspect2:

     Displays the content full-screen.

     Original:

     Displays the content original size.

  – You can also change the mode pressing ASPECT. (Press repeatedly until you reach the desired mode.)

  – Aspect cannot be changed depending on the content.

- To return to thumbnail

  BACK/RETURN

Video Setup

Set up the settings for Video mode.

1. Display the option menu with OPTION
2. Select Video Setup with OK
3. Select one of the following items with △ / ▽ and press OK to access

   Video Preview / Multi Audio / Dual Mono Audio / Subtitle / Subtitle Text / Repeat

   - Menu items and selectable options vary depending on the content.
4. Set with △ / ▽ / ◁ / ▷ and press OK to store

Video Preview

(On / Off)

Sets to start the preview of the title or scene in the thumbnail view.

- Images may not be displayed for an instant in the thumbnail view. Set the preview Off to solve this.
- This function is available in the thumbnail view.

Multi Audio, Dual Mono Audio

Selects for selectable sound tracks (if available).

- It may take several seconds to change the sound.
- This function is available during playback.

Subtitle

Display / hide subtitles (if available).

- This function is available during playback.

Subtitle Text

Selects the font type to display subtitles correctly (if available).

- This function is available during playback.

Repeat

(On / Off)

Playback repeat within the title or selected file (depending on the content)

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO or HDMI2 (ARC function) terminal.

- To confirm or change the current sound status

  → Media Player > Video mode > Video Setup

1. Display the menu with MENU
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access
3. Select Auto / PCM with △ / ▽ and press OK to set

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO and HDMI2 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

Recorded TV mode

Selecting content

- For exclusive USB HDD
- To play back contents in the USB HDD, ensure the connection and settings are completed.

  → Recording > USB HDD setup

1. Contents list of the selected device is displayed in Recorded TV mode
   - Remaining capacity of the selected device is displayed on the top right. (This value may not be accurate depending on the condition.)
   - Contents list is displayed as All or Not Viewed.

     All:

     All the recorded contents are listed.

     Not Viewed:

     Contents not played back yet are listed.
   - Icons are displayed.

     : Content not played back yet (Once you play back the content, this icon will disappear.)

     : Protected content cannot be deleted.

     : Content under recording (You can play back this content even if under recording.)

     : Two or more contents are grouped.

2. Select the content with △ / ▽ and press OK to start playback
   - If you have stopped the last playback halfway, the confirmation screen is displayed to select whether to start from where you stopped last time or from the beginning.
   - If the content has multiple programmes with different parental ratings, the highest restriction is applied to the content. Once you unlock the restriction, all the programmes in the content can be played back.

     – Ireland only

- For supported file formats

  → Media Player > Technical information > Video format

■ Playback

- To operate playback

  △ : Manual skip

  – Press to skip forward approx. 30 seconds.

  – Press and hold to skip backward approx. 15 seconds.

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar) / Playback

- To jump to the specified time point

  1) Display the time seek bar with OK

  2) While the time seek bar is displayed

     Press ◁ / ▷ :

     Search approx. 10 seconds

     Press and hold ◁ / ▷ :

     Search rapidly

  3) Jump to the specified time point with OK

- To display / hide the operation guide and information banner

  i

- To repeat between the starting point “A” and finishing point “B”

  (blue)

  (Set “A” and “B” in order.)

  – The points will be reset by pressing again or by other operations.

- To the previous / next chapter

  (red) / (green)

  – A recorded content is automatically divided into chapters (approx. 5 minutes for each).

- To change aspect

  ASPECT

  → Watching > For best picture > Aspect

- To display the subtitle (if available)

  STTL

- To confirm or change the current status (if available)

  → Watching > Basic > Option Menu

- To return to list

  BACK/RETURN

- The recorded content may not be played back properly while 2 recordings are in progress.

Grouping contents

1. Select the content to edit with △ / ▽ and press (blue) to tick in the contents list
2. Display the option menu with OPTION
3. Select Create Group / Release Group / Exclude from Group / Change Protect Status with △ / ▽ and press OK to set

   Create Group:

   Two or more contents can be grouped. Select and tick all the desired contents, and then select Create Group.

   Release Group:

   Select the created group to release, and then select Release Group. (To release several groups at once, tick all the desired groups.)

   Exclude from Group:

   Select the group and press OK to display the grouped contents. To exclude one specific content from the group, tick it and then select Exclude from Group. (To exclude several contents at once, tick all the desired contents.)

   Change Protect Status:

   Select the content to protect from deletion, and then select Change Protect Status. Perform the same way to cancel the protection. (To change the status of several contents at once, tick all the desired contents.)

Deleting content

1. Select the content to edit with △ / ▽ and press (blue) to tick in the contents list
2. Delete the content with (red)
3. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set

Changing device

You can change the current device to another device directly in the same mode when two or more available devices are connected.

1. Display the option menu with OPTION
2. Select Drive Select with △ / ▽ and press OK to access
3. Select the device with ◁ / ▷ and press OK to access

- If you select the device to play back photos, videos or music, change to the appropriate content.
  1) Display the option menu with OPTION
  2) Select Contents Select with △ / ▽ and press OK to access

Chapter List

You can start playback from the chapter list you select.

1. Display the chapter list with (yellow)
2. Select the chapter with ◁ / ▷ and press OK to start playback

= Note =

- The chapter list is not displayed while the selected content is being recorded.
- Depending on the recorded programmes, some playback operations may not work properly.

Audio output settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO or HDMI2 (ARC function) terminal.

- To confirm or change the current sound status

  → Media Player > Video mode > Video Setup

1. Display the menu with MENU
2. Select Sound > SPDIF Selection with △ / ▽ and press OK to access
3. Select Auto / PCM with △ / ▽ and press OK to set

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO and HDMI2 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.

Music mode

Selecting file

1. Select the folder in the thumbnail view with △ / ▽ / ◁ / ▷
2. Start playback with (red)

- For supported file formats

  → Media Player > Technical information > Music format

■ Thumbnail view

- To display / hide information of the highlighted content

  i

- To start playback

  (red)

- To change the device

  (yellow)

- To change the contents

  (blue)

Playing music

■ Playback of the selected file in the folder

1. Select the folder with △ / ▽ / ◁ / ▷ and press OK to access
2. Select the file with △ / ▽ / ◁ / ▷
3. Start playback with ▬ (red)

■ Playback

- To operate playback

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause / Playback
- To display / hide the operation guide

  i
- To the previous track

  ▬ (red)
- To the next track

  ▬ (green)
- To return to thumbnail

  BACK/RETURN

Music Setup

Set up the setting for Music mode.

- This function is available in the thumbnail view.

1. Display the option menu with OPTION
2. Select Music Setup > Repeat with OK
3. Select Folder / One / Off with △ / ▽ and press OK to set

   Folder:

   Playback repeat within the selected folder

   One:

   Playback repeat of the selected one file

Technical information

Device handling caution

- Data modified with a PC may not be displayed.
- Do not remove the device while the TV is accessing data. Otherwise this can damage the device or TV.
- Do not touch the pins on the device.
- Do not subject the device to a high pressure or impact.
- Insert the device in the correct direction. Otherwise this can damage the device or TV.
- Electrical interference, static electricity, or erroneous operation may damage the data or device.
- Back up the recorded data at regular intervals to prevent data deterioration, data damage or erratic operation of the TV. Panasonic is not liable for any deterioration or damage of recorded data.

SD Card

■ SD Card

Use an SD Card which meets SD standards. Failure to do so may cause the TV to malfunction.

1 2.1 mm

2 32 mm

3 24 mm

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) (miniSD adaptor required)

- When using a miniSD Card, insert / remove it together with the adaptor.

USB devices

- It is recommended to connect the USB HDD or USB Flash Memory to the TV's USB ports directly.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices using a USB card reader.
- Additional information for the devices may be found on the following website. (English only)

  http://panasonic.net/viera/support

■ USB Flash Memory

(for playing back in Media Player)

USB Flash Memory format:

FAT16, FAT32 or exFAT

- USB HDDs formatted on a PC are not guaranteed to work in Media Player.

■ USB HDD

(for recording digital TV programmes with this TV and playing back in Media Player)

- The capacity of USB HDD that works with this TV is from 160 GB to 3 TB.
- Connect the USB HDD to the socket outlet to record and play back properly with this TV.
- Use the USB HDD formatted with this TV.

  → Recording > USB HDD setup > Setting for USB HDD
- Regarding performance, not all USB HDDs are guaranteed. Check the USB HDDs that have been tested for compatibility with this TV at the following website. (English only)

  http://panasonic.net/viera/support

Photo format

■ Supported Photo formats

- JPEG (.jpg, .jpeg, .mpo)

  Image resolution (pixel):

  8 × 8 to 30,719 × 17,279

  Sub-sampling:

  4:4:4, 4:2:2, 4:2:0

- DCF and EXIF standards
- Progressive JPEG is not supported.

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Video format

■ Supported Video formats

- AVCHD (.mts)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  Dolby Digital

- AVCHD Standard Ver. 2.0 (AVCHD 3D, AVCHD Progressive)
- The data may not be available if a folder structure on the device is modified.

- SD-Video (.mod)

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Digital, MPEG Audio

- SD-Video Standard Ver. 1.31 (Entertainment Video Profile)
- The data may not be available if a folder structure on the device is modified.

- AVI (.avi)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, ADPCM, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, LPCM, MPEG Audio, MP3, WMA, WMA Pro

- Some subtitles or chapter functions may not be available.

- MKV (.mkv)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3

- Some subtitles or chapter functions may not be available.

- ASF (.asf, .wmv)

  Video codec:

  MPEG4 SP/ASP, VC-1, Windows Media Video Ver. 9

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MP3, WMA, WMA Pro

- Copy-protected files cannot be played back.

- MP4 (.f4v, .m4v, .mp4)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, MPEG4 SP/ASP

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, MPEG Audio, MP3

- This TV supports this container recorded with Panasonic products. For details, read the manual of the products.

- FLV (.flv)

  Video codec:

  H.264 BP/MP/HP

  Audio codec:

  AAC, MP3

- 3GPP (.3gp, .3g2)

  Video codec:

  H.264 BP/MP/HP, MPEG4 SP/ASP

  Audio codec:

  AAC, HE-AAC

- PS (.mod, .mpg, .mpeg, .vob, .vro)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, HE-AAC, LPCM, MPEG Audio, MP3

- TS (.mts, .m2ts, .tp, .trp, .ts, .tts)

  Video codec:

  H.264 BP/MP/HP, MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Digital, Dolby Digital Plus, DTS core, HE-AAC, MPEG Audio, MP3

■ Supported Subtitles formats

- MicroDVD, SubRip, TMPlayer (.srt, .sub, .txt)
  - The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.
  - If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: “.srt”, “.sub”, “.txt”.

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.
- Supported Video formats are different in Media Player and media server.

→ Home network > Technical information > Video format

Music format

■ Supported Music formats

- MP3 (.mp3)

- AAC, Apple Lossless (.m4a)
  - Copy-protected files cannot be played back.

- WMA / WMA Pro (.wma)
  - Copy-protected files cannot be played back.

- LPCM (.wav)

- FLAC (.flac)

= 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 file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Functions

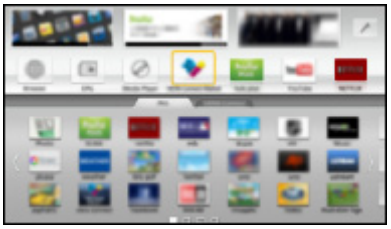
APPS List

Information

Various applications (internet contents, network contents, Media Player, etc.) can be accessed easily from APPS List.

■ APPS List

(Example)



= Note =

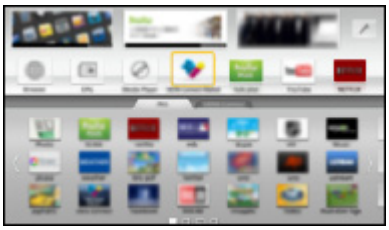
- APPS List is subject to change without notice.

How to use

You can access special features such as internet contents, network contents, Media Player, etc. from APPS List.

1. Display APPS List with APPS

   (Example)

   - To exit APPS List

     EXIT

2. Select an icon of the features with △ / ▽ / ◁ / ▷ and press OK to access

   Internet contents

   → Internet service > Internet content

   Media Player

   → Media Player > Using Media Player > Selecting device / mode

   Recorded TV

   → Media Player > Recorded TV mode

   Media Server

   → Home network > DLNA > Using DLNA

   VIERA Link

   → Functions > VIERA Link “HDAVI Control™”

   Multi Window

   → Functions > Multi Window

Settings

You can customise APPS List (screen settings, etc.).

1. Display APPS List with APPS
2. Select the icon for settings on APPS List with △ / ▽ / ◁ / ▷ and press OK to access

3. Follow the on-screen instructions

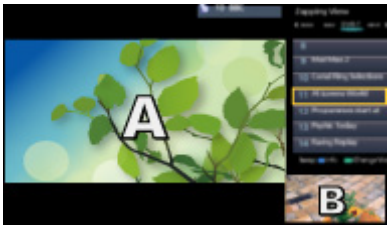
= Note =

- Setup menu items may be changed without notice.

Multi Window

Information

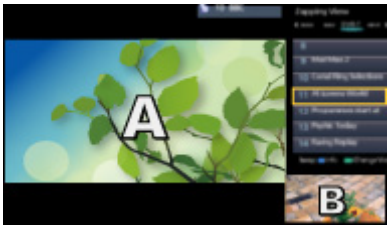
Displays two windows at once for viewing the TV programmes or external input (AV, Component or HDMI) as shown below (example).



Zapping View

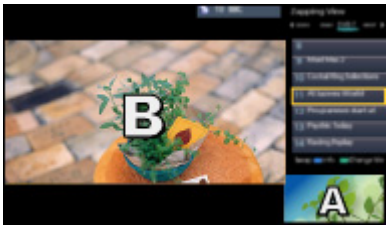
(green)

Watching View



Zapping View

OK



Zapping View

- To swap windows

  OK

- To exit multi window

  EXIT

How to use

You can select a channel while watching another programme or external input.

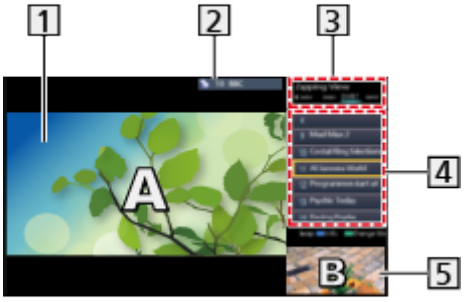
1. Display the menu with MENU
2. Select Picture > Screen Settings > Multi Window with △ / ▽ and press OK to access

- You can also access the multi window mode by selecting Multi Window from APPS List.

→ Functions > APPS List > How to use

■ Zapping View

(Example)



1 Main screen

2 TV mode / input mode / channel position and name (for main screen)

3 TV mode / input mode (for sub screen)

– You can select the TV mode / input mode of the sub screen with ◁ / ▷.

4 Current programme information (if available) (for sub screen)

– You can select the programme of the sub screen with △ / ▽.

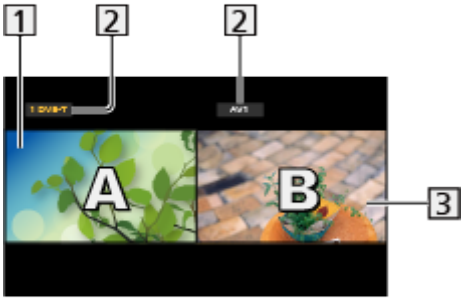
5 Sub screen / information screen

– Press (blue) to change the screen.

- The sound comes only from the main screen.

■ Watching View

(Example)



1 Main screen

2 TV mode / input mode / channel position and name

3 Sub screen

- Press ◁ / ▷ to select the screen to operate.
  - displays on the screen.
- To select the sound
  1) Display Option Menu with OPTION
  2) Select Sound Output with △ / ▽ and press OK to access
  3) Select Main / Sub with △ / ▽ and press OK to set
  - displays on the screen.
- To confirm or change the current status

  OPTION
  - Menu items and selectable options vary between the main screen and sub screen.

  → Watching > Basic > Option Menu
- To display / hide the operation guide

  i

Note

- Ensure that Dual Tuner Mode is set to On in Auto Setup to display freesat or Other Sat. / Satellite mode both in two windows.

  → Watching > Tuning and editing channels > Auto Setup

- Analogue channel cannot be displayed both in two windows.
- Data services are not available in the multi window mode.
- You cannot change the aspect ratio in multi window.
- External input mode can only be displayed either on the main screen or sub screen.
- HDMI is available for the main screen.
- Some signals are reformatted for suitable viewing on your display.

VIERA Link “HDAVI Control™”

Summary of VIERA Link

Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control™” function.

VIERA Link (HDAVI Control) connects the TV and the equipment with VIERA Link function, and enables easy control, playback, energy saving, creating home theatre, etc., without complicated settings. Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically. These features are limited to models incorporating “HDAVI Control” and “VIERA Link”.

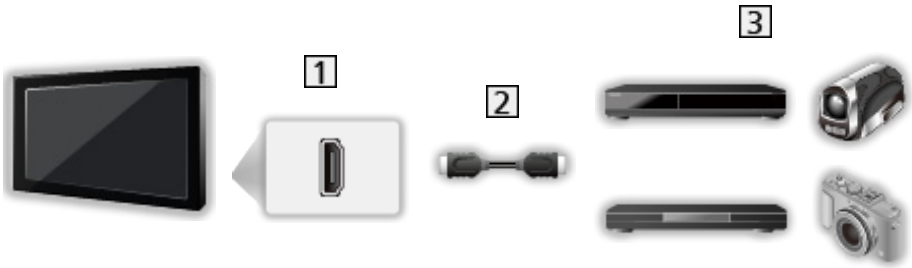
- This TV supports “HDAVI Control 5” function.
- Some functions are not available depending on the equipment’s version of HDAVI Control. Confirm the connected equipment’s version of HDAVI Control.
- VIERA Link features may be available even with other manufacturers’ equipment supporting HDMI CEC.
- VIERA Link “HDAVI Control” is a unique function that we have developed and added based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control). As such, its operation with other manufacturers’ product that supports HDMI CEC cannot be guaranteed.
- Please refer to individual manuals for other manufacturers’ product supporting VIERA Link function.
- For information about applicable Panasonic equipment, consult your local Panasonic dealer or refer to the following website.

  www.panasonic.co.uk

■ VIERA Link (HDMI connection)

- Use a fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI terminal via an HDMI cable.

  About HDMI cable for connecting Panasonic HD Video Camera or LUMIX Camera, read the manual of the equipment.



1 HDMI terminal

2 HDMI cable

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

■ Available features (HDMI connection)

DIGA Recorder / DVD Player / Blu-ray Disc Player

- Easy playback
- Power on link
- Power off link
- Standby Power Save*2
- Intelligent Auto Standby*2
- VIERA Link Control*1

HD Video Camera / LUMIX Camera

- Easy playback
- Power on link
- Power off link
- VIERA Link Control*1

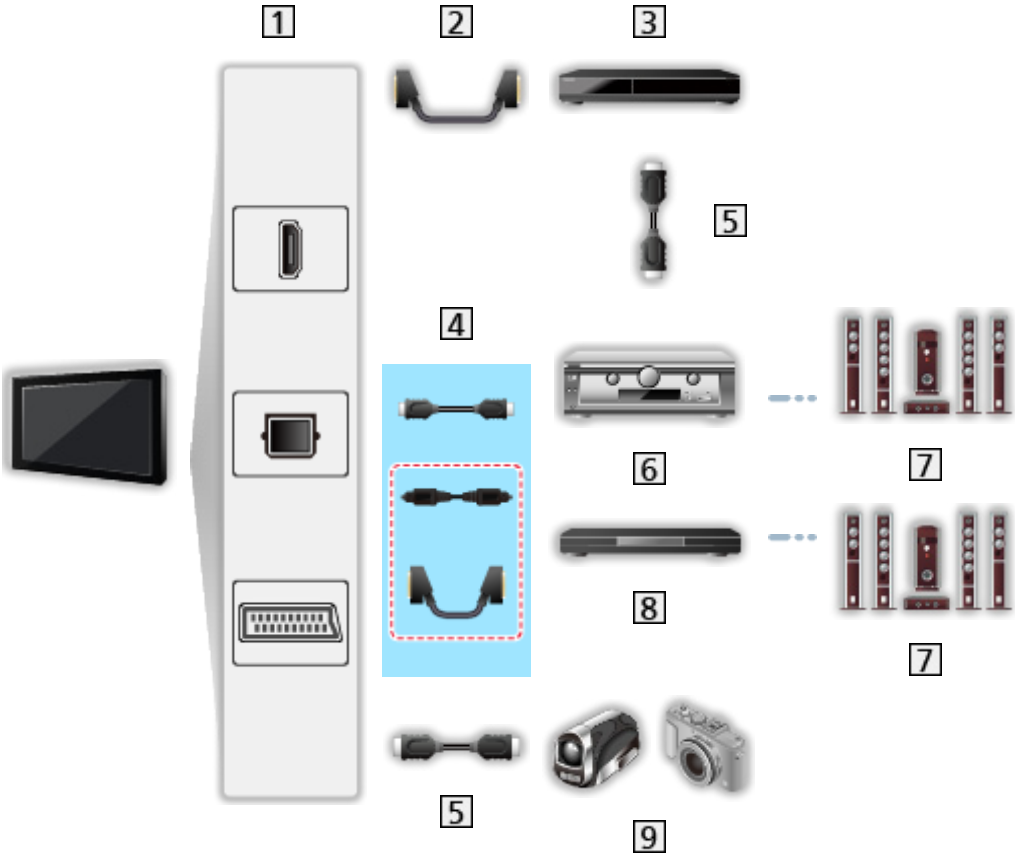
---

*1 : For equipment which has "HDAVI Control 2 or later" function.

*2 : For equipment which has "HDAVI Control 4 or later" function.

■ VIERA Link (HDMI and Audio out connections)

- Use a fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI terminal via an HDMI cable.
- Use a fully wired SCART cable.
- Use the optical digital audio cable or SCART cable for audio output from the TV.



1 HDMI terminal / DIGITAL AUDIO / AV1 (SCART) terminal

2 SCART cable

– AV1 (SCART) adaptor (supplied) is necessary when connecting to the TV.

3 DIGA Recorder with VIERA Link function

4 HDMI cable / Optical digital audio cable * or SCART cable *

– AV1 (SCART) adaptor (supplied) is necessary when connecting to the TV.

5 HDMI cable

6 Amplifier with VIERA Link function

7 Speaker system

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

9 HD Video Camera / LUMIX Camera with VIERA Link function

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

■ Available features (HDMI and Audio out connections)

Player theatre

- Easy playback*3
- Power on link
- Power off link
- Intelligent Auto Standby*2*4
- VIERA Link Control*1
- Speaker Selection

Blu-ray Disc theatre

- Easy playback*3
- Power on link
- Power off link
- Standby Power Save*2
- Intelligent Auto Standby*2*4
- VIERA Link Control*1
- Speaker Selection

Amplifier

- Power off link
- Intelligent Auto Standby*2
- Speaker Selection

*1 : For equipment which has “HDAVI Control 2 or later” function.

*2 : For equipment which has “HDAVI Control 4 or later” function.

*3 : While playing a disc.

*4 : Except for watching a disc.

■ VIERA Link Control of compatible equipment

The following is the maximum number of compatible equipment that can be controlled by VIERA Link Control. This includes connections to equipment already connected to the TV. For example, DIGA Recorder connected to Amplifier which is connected to the TV via an HDMI cable.

→ Functions > VIERA Link "HDAVI Control™" > VIERA Link Control

- Recorder:

  Maximum 3 (DIGA Recorder, etc.)

- Player:

  Maximum 3 (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)

- Audio system:

  Maximum 1 (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)

- Tuner:

  Maximum 4 (Set top box, etc.)

Preparations

- Connect the equipment supporting VIERA Link.
- For VIERA Link connections

  → Functions > VIERA Link "HDAVI Control™" > Summary of VIERA Link

- Use a fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be used.
- Use a fully wired SCART cable.
- Set up the connected equipment. Read the manual of the equipment.
- Set VIERA Link to On in the Setup Menu.

  → Settings > Setup > VIERA Link Settings

- Set up the TV. After connection, turn the equipment on and then switch the TV on. Select the HDMI input from Input Selection with AV and make sure that an image is displayed correctly. (This setup should be done each time the following conditions occur.)
  - first time operation
  - adding or reconnecting equipment
  - changing setup

Easy playback

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

Power on Link

Set Power on Link to On in the Setup Menu to use this function.

→ Settings > Setup > VIERA Link Settings

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

Power off Link

Set Power off Link to On in the Setup Menu to use this function.

→ Settings > Setup > VIERA Link Settings

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

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

→ Settings > Setup > VIERA Link Settings

The power consumption of the connected equipment in Standby mode 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 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 start the connected equipment fast.

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

Intelligent Auto Standby

Set Intelligent Auto Standby to On in the Setup Menu to use this function.

→ Settings > Setup > VIERA Link Settings

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

- This function may not work properly depending on the connected equipment. In this case, set to Off.

VIERA Link Control

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

1. Display APPS List with APPS
2. Select VIERA Link with △ / ▽ / ◁ / ▷ and press OK to access
3. Select VIERA Link Control with △ / ▽ and press OK to access
4. Select one of the following items with △ / ▽ and press OK to access

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

   (The menu of the accessed equipment will be displayed. The input mode will be changed automatically.)

   - 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.
5. Follow the on-screen instructions to operate the menu of the equipment
   - Confirm the remote control code is "73".

     → Watching > External equipment > Operating with TV's remote control
   - To display the operation guide

     OPTION

     (If other manufacturers' product is accessed, Setup / Contents Selection menu may be displayed.)
   - Available TV's remote control buttons depend on the connected equipment.

■ If multiple recorders or players are connected

Each recorder / player is numbered. The number is given from the TV's lower number of HDMI terminal connected to the same type of equipment. For example, when two recorders are connected to HDMI2 and HDMI3, the recorder connected to HDMI2 is displayed as Recorder1, and the recorder connected to HDMI3 is displayed as Recorder2.

■ If you access non-VIERA Link equipment

The type of the connected equipment is displayed. Although you can access the connected equipment, you cannot operate it. Use the remote control of the connected equipment.

= Note =

- If you cannot operate the equipment, check the settings and the equipment.

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Some operations may not be available depending on the equipment. In this case, use the remote control of the connected equipment.
- For details of the operations for the connected equipment, read the manual of the equipment.

Speaker Selection

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

1. Display APPS List with APPS
2. Select VIERA Link with △ / ▽ / ◁ / ▷ and press OK to access
3. Select Speaker Selection with △ / ▽ and press OK to access
4. Select Home Cinema / TV with △ / ▽ and press OK to set

   Home Cinema:

   The sound is delivered from theatre speakers. Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode.

   - The sound of TV speakers is mute. When the equipment is turned off, TV speakers will be activated.
   - You can use the Volume Up / Down button and MUTE.

   TV:

   TV speakers are active.

■ Multi-channel sound

If you want to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect it with an HDMI cable and Optical digital audio cable, and then select Home Cinema. If your Amplifier has the "HDAVI Control 5" function, you only need to connect it with an HDMI cable 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.

= Note =

- If you cannot operate the equipment, check the settings and the equipment.

→ Functions > VIERA Link "HDAVI Control™" > Summary of VIERA Link

Note

- These functions may not work properly depending on the connected equipment.
- Image or sound may not be delivered for the first few seconds when the input mode is switched.
- “HDAVI Control 5” is the newest standard for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm the HDAVI Control version of this TV

  → Support > Information > Using Help menu

Child Lock

Using Child Lock

You can lock specific channels / AV input terminals to restrict access to them. When the locked channel / input is selected, a message appears. Enter the PIN number to watch.

1. Display the menu with MENU
2. Select Setup > Child Lock with △ / ▽ and press OK to access
3. Enter the PIN number (4 digits) with the numeric buttons

   1 2 3
   4 5 6
   7 8 9
   0

   - Enter the PIN number twice at first setting.
   - Make a note of the PIN number in case you forget it.
4. Select Child Lock List with △ / ▽ and press OK to access
5. Select the channel / input with △ / ▽ and press OK to lock
   - 🔒 appears when the channel / input is locked.
   - To cancel
     1) Select the locked channel / input with △ / ▽
     2) Press OK
   - To lock all

     (green)
   - To cancel all locks

     (yellow)
   - To jump to the head of the next channel / input group

     (blue)

■ freesat Adult Channels

Select Hide to hide channels of the adult genre in TV Guide and Channel List. All the Timer Programming events of the adult genre will be cancelled.

= Note =

- For freesat mode (UK only)

■ freesat Players

Locks freesat content supplied through the internet.

Unlock:

With this setting selected, you will not be required to enter your 4 digit child lock PIN when viewing freesat Player content. This is the default setting.

Lock Guidance Content:

With this setting selected, you will be asked to enter your 4 digit child lock PIN whenever you want to watch freesat Player content which is signalled as “Guidance” (i.e. originally broadcast post watershed).

Lock All Content:

With this setting selected, you will be required to enter your 4 digit child lock PIN every time you want to watch freesat Player content.

= Note =

- For freesat mode (UK only)

■ Freeview Players

Applies access control for some digital text services.

= Note =

- For DVB mode (UK only)

PIN number

You can change the PIN number.

1. Select Change PIN with △ / ▽ and press OK to access
2. Enter a new PIN number twice with the numeric buttons

= Note =

- Setting Shipping Condition erases the PIN number and all settings.

Parental Rating

To watch the DVB programme that has rating information on the selected age, enter the PIN number (depending on the broadcaster).

1. Select Parental Rating with △ / ▽ and press OK to access
2. Select an age for the restriction of programmes with △ / ▽ and press OK to set

= Note =

- Setting Shipping Condition erases the PIN number and all settings.
- Ireland only

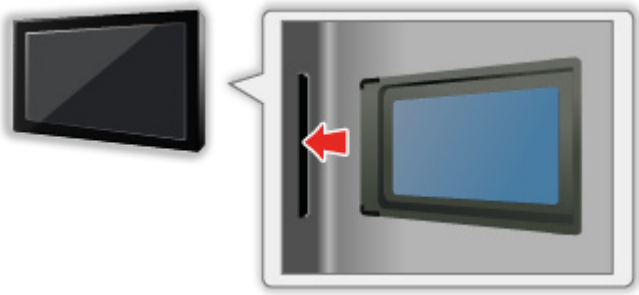
Common Interface

Caution

If the encrypted message is displayed on the screen, the correct Common Interface (CI) Module and smart card that are required for this service are not inserted.

■ How to insert CI module and smart card

- Turn the TV off with Mains power On / Off switch whenever inserting or removing the CI module.
- If a smart card and a CI module come as a set, first insert the CI module, then insert the smart card into the CI module.
- Insert or remove the CI module completely in the correct direction as shown.



- Remove the CI module from the TV when placing the TV facing upward. This may cause damages to the CI module and CI slot.

= Note =

- There might be some CI modules in the market with older firmware versions that do not work fully interoperable with this new CI+ v1.3 TV. In this case, please contact your content provider.

Using Common Interface

The Common Interface Module menu provides access to software contained in Common Interface (CI) Modules.

- Video and audio signals may not be output depending on broadcasts or services.

■ Insert the CI module (optional)

- The features that appear on screen are dependent on the contents of the selected CI module.
- Follow the instructions that came with the viewing card to tune in the encrypted channels. If encrypted channels do not appear, perform the below to verify the card is recognised by the TV.
- For more details, read the manual of the CI module, or check with the broadcaster.

1. Display the TV Selection screen with TV
2. Select DVB with △ / ▽ and press OK to set
3. Display the menu with MENU
4. Select Setup > System Menu > Common Interface with △ / ▽ and press OK to access
5. Select Slot 1: with △ / ▽, press OK and follow the on-screen instructions

- On-screen instructions may not correspond to the remote control buttons.

Shipping Condition

Shipping Condition

Resets the TV to its original condition (i.e. no channels tuned in).

All settings other than USB Device Setup are reset (channels, picture, sound settings, etc.).

1. Display the menu with MENU
2. Select Setup > System Menu > Shipping Condition with △ / ▽ and press OK to access
3. When the confirmation screen is displayed, select Yes with ◁ / ▷ and press OK to set
4. Follow the on-screen instructions
   - Auto Setup will automatically start.

= Note =

- To retune TV channels only (e.g. after moving house), set Auto Setup.

  → Watching > Tuning and editing channels > Auto Setup

Updating the TV Software

Information

A new version of software may be released for download to enhance the performance or operations of the TV.

In DVB mode, a notification banner will appear when one of the BBC channels is turned to if a new available software is found.

- To install new software, select Standby / Now with ◁ / ▷ and press OK to set.

  Standby:

  Installs new software in standby condition.

  Now:

  Installs new software now.

Auto update

You can update new software automatically.

1. Display the menu with MENU
2. Select Setup > System Menu > System Update > Auto Update Search in Standby with △ / ▽ and press OK to access
3. Select On with △ / ▽ and press OK to set

- If any software updates are available, the notification message will appear. To install new software, select Standby / Now with ◁ / ▷ and press OK to set.

  Standby:

  Installs new software in standby condition.

  Now:

  Installs new software now.

- If System Update is performed, the software will be updated (TV functions may be changed). If you do not want to do so, set Auto Update Search in Standby to Off.
- The automatic updating is performed while the recording of Timer Programming or One Touch Recording is not in progress.

= Note =

- Download may take a few hours.
- During software download and update, DO NOT perform any operations on the TV or switch Off the TV.

Manual update

You can update new software manually.

1. Display the menu with MENU
2. Select Setup > System Menu > System Update > System Update Search Now with △ / ▽ and press OK to access
3. Searches for an update (for several minutes) and displays a corresponding message if any
4. Download with OK

= Note =

- Download may take a few hours.
- During software download and update, DO NOT perform any operations on the TV or switch Off the TV.

Setting characters

Using numeric buttons

You can enter characters for free input items using numeric buttons.

Press the numeric button repeatedly until you reach the desired character.

1 : . @ / 1 ! : # + - * _ ( ) “ ‘ % & ? , ; = $ [ ] ~ < > { } | ` ^ \

2 : a b c 2 A B C

3 : d e f 3 D E F

4 : g h i 4 G H I

5 : j k l 5 J K L

6 : m n o 6 M N O

7 : p q r s 7 P Q R S

8 : t u v 8 T U V

9 : w x y z 9 W X Y Z

0 : Space 0

- The character is set automatically if you leave for 1 second.
- You can also set the character pressing OK or other numeric buttons less than 1 second.
- The characters may vary depending on the input items.

Built-in Camera

Using built-in Camera

You can use the built-in Camera as a communication tool for specific applications such as face recognition, video message, etc.

→ Watching > my Home Screen > Settings

= Note =

Please note that under certain circumstances, audio / video recording may be prohibited by local laws. This appliance should be used only in compliance with all applicable laws, regulations and statutes.

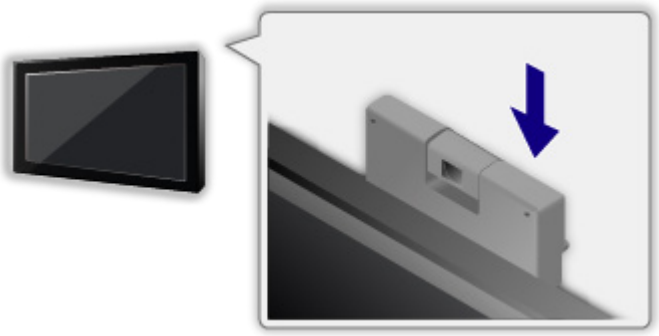
■ Auto pop-up

When the application for camera operation is activated, the built-in Camera automatically pops up.

- Do not slide up the built-in Camera by hands.

■ To close the built-in Camera

- Push the top of the camera manually.



= Note =

- Face recognition may not work properly depending on surrounding environment or condition (for example, darkened room, etc.).
- The applications such as video communication need a broadband network environment. Ensure the network connections and network settings are completed.

  → Internet service > Network connections

  → Internet service > Network settings
- This function is subject to change without notice.

Voice Control

Preparations

Voice Control function allows you to operate the TV (e.g. selecting a channel), search the content from various features, etc. with your speech.

- To use this function fully, you need a broadband network environment. Ensure the network connections and network settings are completed.

  → Internet service > Network connections

  → Internet service > Network settings

- Ensure the pairing of the touch pad controller is completed.

  → Settings > Setup > VIERA Touch Pad Controller

■ Voice Control Settings

1. Display the menu with MENU
2. Select Setup > Voice Control Settings > Speech Detection Level / Terms of Service with △ / ▽ and press OK to access
3. Set with △ / ▽ / ◁ / ▷ and press OK to store

Speech Detection Level

(High / Standard)

Adjusts the sensitivity to recognise your speech.

Terms of Service

Displays the terms of service.

= Note =

- To use Voice Control function fully, you need a broadband network environment, because this function accesses the speech recognition server with the internet connection. Even if you have the internet environment, this function may not be available depending on the proxy settings. Please connect the internet without proxy settings. (Proxy settings are not required for normal household use. For details of internet environment, consult your Internet Service Provider (ISP) or telecommunications company.)

How to use

1. Press of VIERA Touch Pad Controller
   - When the confirmation screen is displayed, read carefully and start Voice Control function.
2. The operation guide is displayed and follow the on-screen instructions

- To display voice command list

  OPTION

- To exit Voice Control function

  BACK/RETURN

= Note =

- When you start Voice Control function, sound level of the TV becomes low.
- Voice Control function may not work properly in the following conditions.
  - Not pronounce clearly and correctly
  - Volume level of your voice is too loud or too low.
  - Surrounded by the noise
- Phrases other than Voice Command may not be recognised.
- It is recommended to speak within about 15 cm from the integrated microphone of VIERA Touch Pad Controller when using Voice Control function.
- Voice Control function is subject to change without notice.

Electronic Touch Pen

Information

This function allows you to paint or play games on the TV screen using Electronic Touch Pen (hereafter referred to as “Touch Pen”).

- The Touch Pen is available only for specific applications.

Touch Pen Setup

■ Pairing

To use the Touch Pen, you need to pair the Touch Pen to the TV.

1. Display the menu with MENU
2. Select Setup > Touch Pen Setup > Pairing with △ / ▽ and press OK to access
3. Follow the on-screen instructions

= Note =

- Place the Touch Pen within 50 cm from the TV while registration in progress.
- This TV can be paired with up to 2 pieces of the Touch Pen simultaneously. Pairing condition may differ depending on the registration status for each Bluetooth device.

■ Unpair

Cancels pairing all the registered Touch Pen.

1. Display the menu with MENU
2. Select Setup > Touch Pen Setup > Unpair with △ / ▽ and press OK to access
3. Follow the on-screen instructions

Using Electronic Touch Pen

■ How to paint on the photo / video

1. Press Power button to turn on the Touch Pen
2. Display the following images full-screen
   – DVB mode
   – HDMI input
   – Photo / video contents of Media Player / Network services
3. Touch the pen tip to the TV screen for a few seconds
4. The confirmation screen is displayed and follow the on-screen instructions

= Note =

- You can save the image into the SD card / USB Flash Memory after painting in the following contents.
  – Photo content in Media Player / Network services
  – Not encrypted content in HDMI input
- Depending on the condition, you may not be able to paint on the edge of the screen.

■ Using applications (painting, playing games, etc.)

1. Press Power button to turn on the Touch Pen
2. Display APPS List with APPS
3. Select the specific application with △ / ▽ / ◁ / ▷ and press OK to access
4. Follow the on-screen instructions

■ Basic operation for the Touch Pen

Perform the following operations using the Touch Pen when selecting screen operation or items, or using software for the Touch Pen.

Tap:

Touch the pen tip to the panel and release it quickly.

Hold/Release:

Keep touching the pen tip to the panel./Release the pen tip.

Drag and drop:

Move with the pen tip touched to the panel.

- Operations differ depending on application.

Maintenance

■ Storage and Cleaning

- Clean using a soft, dry cloth.
- Do not use benzene, thinner, or wax on the Touch Pen, as doing so may cause the paint to peel off.
- Do not dunk the Touch Pen in liquid such as water when cleaning.
- Avoid storing the Touch Pen in hot or highly humid locations.
- Remove soil stuck to the pen tip with a cotton swab, etc. Be careful not to subject the pen tip to impact since it is equipped with the sensor. Using with soil or foreign matters attached will cause scratch of the screen.

Bluetooth devices

Bluetooth Setup

You can use Bluetooth keyboards*1 and Bluetooth audio devices*2 (headphones, etc.) with this TV by setting Bluetooth Setup in the Setup Menu.

→ Settings > Setup > Bluetooth Setup

*1 : HID (Human Interface Device Profile) compliant keyboards can be used.

*2 : A2DP (Advanced Audio Distribution Profile) compliant audio devices can be used.

1. Display the menu with MENU
2. Select Setup > Bluetooth Setup with △ / ▽ and press OK to access
3. Select Devices / Bluetooth Audio Settings with △ / ▽ and press OK to access

---

Devices

Searches the available device and displays the status.

- You cannot use two or more A2DP compliant audio devices simultaneously.

Not paired:

The device is not registered. Register the device by following the on-screen instructions to use with this TV.

Connected:

The device is registered and you can use with this TV.

Not connected:

The device is already registered, but not connected to this TV. Check the device is turned on and set within the available range.

Bluetooth Audio Settings

Adjusts the delay time if the sound of the audio device does not synchronise the image.

- This function is available for the Bluetooth audio devices.
- Set Lip Sync to On and adjust in Lip Sync Adjustment.

- To adjust the volume of this audio device, set Headphone Volume.

  → Settings > Sound > Volume settings

- Settings in the Sound Menu may not be effective for the Bluetooth audio devices.
- This setup has not been designed for the 3D Eyewear, VIERA Touch Pad Controller and Electronic Touch Pen supporting Bluetooth wireless technology.
- Additional information for the devices may be found on the following website. (English only)

  http://panasonic.net/viera/support

Keyboard / Gamepad

Keyboard

- Keyboards requiring the drivers are not supported.
- To change the language type, set Keyboard Layout.

  → Settings > Setup > System Menu

- Characters may not be displayed correctly on the TV screen depending on the connected keyboard or the keyboard layout setting.
- Some of the keys of keyboards may correspond to the operation of the remote control.

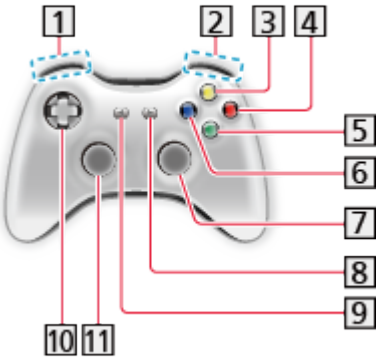
Keyboard	Remote Control
↑ / ↓ / ← / →	△ / ▽ / ◁ / ▷
Enter	OK
Backspace	BACK/RETURN
Esc	EXIT
0 - 9 / Character	Numeric buttons
F1	HOME
F2	APPS
F3	MENU
F4	AV
F5 / F6	Channel Down / Up
F7 / F8	Volume Down / Up
F9 / F10 / F11 / F12	Coloured buttons

Gamepad

- Check the gamepads that have been tested for compatibility with this TV at the following website. (English only)

  http://panasonic.net/viera/support

- Some of the keys of gamepads correspond to the operation of the remote control.



1 Volume Up / Down

2 Channel Up / Down

3 GUIDE

4 OK

5 BACK/RETURN

6 HOME

7 APPS

8 EXIT

9 AV

10 △ / ▽ / ◁ / ▷

11 MENU

Settings

Setting menu

How to use

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

1. Display the menu with MENU
   - Displayed items vary depending on the input signal.
2. Select the menu with △ / ▽ and press OK to access
3. Select the items with △ / ▽ and press OK to access
   - Only available items can be selected.
   - You can also access from eHELP pressing ▬ (red) at each item. (if available)

- You can select from among alternatives with △ / ▽ and press OK to set.
- You can adjust using the slide bar with ◁ / ▷ and press OK to set.
- You can go to the next screen with OK.
- You can enter names or numbers freely for some items.
  1) Enter characters one by one with △ / ▽ / ◁ / ▷ and press OK to set
     – You can set characters using numeric buttons.

       → Functions > Setting characters > Using numeric buttons
  2) Press BACK/RETURN to store
- To reset the settings
  – To initialise picture or sound settings only, select Reset to Defaults in the Picture Menu or Sound Menu.

    → Settings > Picture > Reset to Defaults

    → Settings > Sound > Reset to Defaults
  – To initialise all settings, select Shipping Condition.

    → Settings > Setup > System Menu
- To exit the menu screen

  EXIT
- To return to the previous screen

  BACK/RETURN

- To change menu pages

= Note =

- A different menu will be displayed in the mode of Media Player or Network services.

  Media Player > Using Media Player

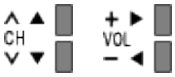
  Home network > DLNA > Using DLNA

- If Demo Settings is displayed in the Setup Menu, the TV is in “Shop” viewing environment. To return to “Home” viewing environment, initialise all settings by accessing Shipping Condition.

  Functions > Shipping Condition

■ Using control panel buttons

1. Press and hold INPUT/OK/HOLD for MENU button for 3 seconds to display the menu
2. Select and set with following control panel buttons
   - 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 with INPUT/OK/HOLD for MENU button.

Picture

Viewing Mode

Selects your favourite picture mode for each input.

(Dynamic / Normal / Cinema / THX Cinema / THX Bright Room / Custom / Professional1 / Professional2)

Dynamic:

Improves contrast and sharpness for viewing in a bright room.

Normal:

Normal use for viewing in a normal lighting condition.

Cinema:

Improves the performance of contrast, black and colour reproduction for watching movies in a darkened room.

THX Cinema *:

Reproduces the original image quality precisely in a darkened room.

- THX3D Cinema is displayed instead of THX Cinema in 3D mode.

THX Bright Room *:

Reproduces the original image quality precisely in a bright room.

- Not valid in 3D mode

Custom:

Adjusts each menu item manually to suit your favourite picture quality.

Professional1 / 2:

Allows you to set and lock the professional picture settings.

→ Watching > For best picture > Advanced Settings

- This mode is available only when Professional Mode (isfccc) in the Setup Menu is set to On.
- If the certified professional dealer sets these modes, Professional1 and Professional2 may be displayed as isf Day and isf Night.

In each Viewing Mode, Contrast, Brightness, Colour, Tint, Sharpness, Colour Temperature, Vivid Colour, Ambient Sensor, Noise Reduction, MPEG Remaster, Resolution Remaster, Caption Smoother, Brilliance Enhancer, Intelligent Frame Creation and 24p Smooth Film can be adjusted and stored.

When in Custom or Professional1 / 2 mode, Advanced Settings can be adjusted additionally. The settings in Custom or Professional1 / 2 mode can be stored for each input.

- You can set Viewing Mode in 2D and 3D mode for each.

*: THX modes are used to mirror the picture settings used by professional filmmakers, faithfully reproducing the image quality of THX Certified movies. THX Certified movies have the THX logo on the disc. THX modes are not available for photo contents or internet services.

Basic settings

Contrast, Brightness, Colour, Tint, Sharpness

Adjusts the levels of these options according to your personal preference.

Colour Temperature

(Cool / Normal / Warm)

Sets the overall colour tone of the picture (bluer - redder).

Vivid Colour

(On / Off)

Automatically adjusts colours to vivid ones.

Colour Remaster

(Auto / On / Off)

Displays the vivid images with the expanded colour gamut.

- Set to Auto to use this function effectively.
- For HDMI input or video contents of Media Player (when Viewing Mode is set to Dynamic, Normal or Cinema)

Reversal Film Effect

(Auto / On / Off)

Provides the picture effect such as the reversal film for photo contents.

- Not valid in Network services

Ambient Sensor

Automatic Brightness Control function

Adjusts picture settings automatically depending on ambient lighting conditions.

(On / Off)

Noise reduction settings

Noise Reduction

(Auto / Max / Mid / Min / Off)

Reduces unwanted picture noise.

MPEG Remaster

(Auto / Max / Mid / Min / Off)

Reduces flicker noise in contoured parts of a picture and block noise.

Resolution Remaster

Enhances picture resolution to make the image sharper.

(Auto / Max / Mid / Min / Off)

Caption Smoother

Makes caption contours smooth. Specially effective for low resolution contents.

(Auto / Max / Mid / Min / Off)

- Not valid in 3D mode

Brilliance Enhancer

Enhances picture contrast locally to increase picture brilliance.

(Max / Mid / Min / Off)

- Not valid in 3D mode

Intelligent Frame Creation

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

(Max / Mid / Min / Off)

- Depending on the contents, images may be noisy. To prevent the noise, change the setting.
- Not valid in multi window mode or when Game Mode is set to On

24p Smooth Film

Automatically compensates the picture frame rate to make the 24p source movie images smooth.

(Max / Mid / Min / Off)

- This function is available only for 24p signal input and displayed instead of Intelligent Frame Creation.
- Not valid in multi window mode or when Game Mode is set to On

Advanced Settings

You can adjust and set up the detailed picture settings.

→ Watching > For best picture > Advanced Settings

This function is available when Viewing Mode is set to Custom or Professional1 / 2 mode.

→ Settings > Picture > Viewing Mode

Option Settings

Game Mode

(On / Off)

Provides suitable images for fast response signals when playing games.

- Not valid on TV or multi window mode
- To display a continuous record of time spent using Game mode, set Playing Time Display.

  → Settings > Setup > Display Settings

Film Cadence Mode

(On / Off)

Improves vertical resolution for movie images.

- This function is available for interlaced signals (except in the mode of multi window, Network services or when Game Mode is set to On).

1080p Pure Direct

(On / Off)

Reproduces the original image quality in detail for 1080p (HDMI) input signal.

- Not valid in 3D or multi window mode

HDMI Content Type

(Graphics / Photos / Auto / Off)

Adjusts the picture settings of each HDMI input according to the selected content type.

Auto:

Automatically adjusts the picture settings according to the received HDMI content if the connected equipment supports HDMI Content Type.

- To set the availability of each content type for Auto mode, select Auto Detail Setting.
- For HDMI input

HDMI RGB Range

(Auto / Full / Normal)

Adjusts the black level of the image for each HDMI input.

- When the black level is not suitable, select Full.
- For HDMI input

3D-COMB

(On / Off)

Makes still or slow moving pictures 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 / NTSC signal reception in TV mode or from composite connection
- Not valid in 3D mode

Screen Settings

16:9 Overscan

(On / Off)

Selects the screen area displaying the image for 16:9 aspect.

On:

Enlarges the image to hide the edge of the image.

Off:

Displays the image in the original size.

- Set to On if noise occurs on the edge of the screen.
- This function can be memorised for SD (Standard definition) and HD (High definition) signals respectively.
- Not valid in Network services

H-Size

(H-Size1 / H-Size2)

Switches the horizontal display range to reduce noise on the side edge of the image.

- For TV mode, AV and HDMI input
- Not valid in 3D mode

Zoom Adjustments

Adjusts the vertical position and size when aspect is set to Just, Sidecut Just, Zoom or Sidecut Zoom.

Multi Window

Displays two windows at once.

→ Functions > Multi Window > Information

Screen Display

(On / Off)

Turns the screen off when you select Off.

This function is effective in reducing power consumption when listening to the sound without watching the TV screen.

- Press any buttons (except Standby) to turn the screen on.

Side Panel

(High / Mid / Low / Off)

Adjusts the brightness of the side panel.

- The recommended setting is High to prevent panel “image retention”.

Pixel Orbiter

(On / Auto)

Selects the mode for wobbling of the image to prevent panel “image retention”.

Auto:

Automatically works only for the appropriate images and you rarely recognise the wobbling.

Scrolling Bar

Displays scrolling bar pattern to assist elimination of panel “image retention”.

- Press OK to start scrolling and press any buttons (except Standby) to exit this mode.
- For positive effect to eliminate “image retention”, it may be necessary to display for a long time.

3D Settings

3D Detection

(On (Advance) / On / Off)

Selects whether to switch to the 3D mode automatically or not.

On (Advance):

Detects all the 3D format signals and displays the 3D image automatically.

On:

Detects the particular 3D format signals (Frame Sequential, etc.) and displays the 3D image automatically.

- To view 3D images without any notifications and operations, set to On (Advance).

3D Signal Message

(On / Off)

Selects whether to give a notification message when a signal of 3D format is found or not.

- Not valid when 3D Detection is set to On (Advance)
- For DVB, Component and HDMI input

3D Refresh Rate

(Auto / 100Hz / 120Hz)

Reduces juddering and flicker noises of the 3D images when using the 3D Eyewear.

100Hz:

If light appears to flicker under fluorescents (or dimmers) of 50 Hz.

120Hz:

If light appears to flicker under fluorescents (or dimmers) of 60 Hz.

2D→3D Depth

(Max / Mid / Min)

Selects a level of 3D-image depth for viewing converted 2D images.

3D Adjustment

(On / Off)

Adjustment of the 3D effect (except in 2D→3D mode).

Set to On to enable Effect setting.

- When setting to On, a safety precaution message will appear. Read it carefully and press BACK/RETURN to go to Effect setting.
- When adjusting, take into account that the vision of 3D images varies among different individuals.

  Effect:

  Adjusts the 3D depth according to the contents or to your preference. (This setting will not be memorised when changing the input mode or channel.)

L/R Picture Swap

(L/R (Normal) / R/L (Reversed))

Swaps pictures for left eye and right eye (except in 2D→3D mode).

Select R/L (Reversed) if you feel that the sense of depth is unusual.

- This setting will not be memorised when changing the input mode or channel.

Edge Smoother

(On / Off)

Set to On if you feel the contoured parts of an image are not smooth enough (except in 2D→3D mode).

Safety Precautions

Displays the precautions for viewing 3D images.

Lock Settings

Locks the settings of Professional1 / 2 mode for each input.

→ Watching > For best picture > Lock Settings

Copy Adjustment

Copies the selected Custom, Professional1 or Professional2 settings to those of the other input.

→ Watching > For best picture > Copy Adjustment

Reset to Defaults

Resets the current Picture Viewing Mode to the default settings.

Sound

Mode

Selects your favourite sound mode for each input.

(Standard / Music / Ambience / User)

Standard:

Provides the suitable sound quality for all types of scenes.

Music:

Improves sound quality for watching music videos, etc.

Ambience:

Improves spatial effects and provides clear sounds.

User:

Adjusts the sounds manually using the equaliser to suit your favourite sound quality.

- In each mode, Bass, Treble, Surround, Bass Boost and Digital Remaster can be adjusted and stored.
- For the User mode, Equaliser will be available in the Sound Menu instead of Bass and Treble. Select Equaliser and adjust the frequency.

  → Settings > Sound > Basic settings

- This function is effective only for the sound from TV speakers.

Basic settings

Bass

Adjusts level to enhance or minimise lower, deeper sound output.

Treble

Adjusts 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 using △ / ▽.
- To enhance the bass sound, raise the level of the lower frequency. To enhance the treble sound, raise the level of the higher frequency.
- To reset the levels of each frequency to the default settings, select Reset to Defaults with ◁ / ▷ and press OK.
- This function is effective only for the sound from TV speakers.

Balance

Adjusts volume level of right and left speakers.

Surround

(Stadium / Hall / Natural / Off)

Selects surround sound settings.

Stadium:

Provides the sound effect such as a stadium.

Hall:

Provides the sound effect such as a concert hall.

Natural:

Controls the reverberation to make the voice sound clearer.

- This function is effective only for the sound from TV speakers.

Bass Boost

(On / Off)

Enhances the effect of bass sounds.

- This function is effective only for the sound from TV speakers.

Digital Remaster

(On / Off)

Compensates a compressed audio signal to reproduce the original sound quality.

- This function is effective only for the sound from TV speakers.

Volume settings

Headphone Volume

Adjusts the volume of headphones.

Auto Gain Control

(On / Off)

Automatically regulates large sound level differences between channels and inputs.

Volume Correction

Adjusts the volume of each individual channel or input mode.

Speaker Distance to Wall

(Up to 30cm / Over 30cm)

Compensates for the low frequency sound due to the distance between the speakers and the wall.

- If the back space between the TV and wall is within 30 cm, Up to 30cm is recommended.
- If the back space between the TV and wall is over 30 cm, Over 30cm is recommended.
- This function is effective only for the sound from TV speakers.

Voice Guidance Settings

Voice Guidance

(On / Off)

Set to On to enable voice guidance of the basic features (menu item, on-screen messages, etc.) for visually impaired users.

Speed

(Fast / Normal / Slow)

Selects the readout speed for the voice guidance.

Volume

(Max / Mid / Min)

Selects the volume for the voice guidance.

User Level

(Beginner / Expert)

Selects the level of verbosity for the voice guidance.

Web Browser

(On / Off)

Set to On to enable voice guidance of the network contents in web browser function.

Audio Description

Audio Description

(Auto / Off)

Narration settings for visually impaired users.

Set to Auto to activate the narration sound track when available on the broadcast.

- The availability of audio description sound track is indicated by AD in the information banner.
- For freesat or DVB mode
- Not valid on the sub screen in multi window mode

Volume

Adjusts the volume for Audio Description.

- For DVB mode
- UK only

Speakers

(On / Off)

Set to On to activate the description sound track from TV speakers.

- For DVB mode
- UK only

Headphones

(On / Off)

Set to On to activate the description sound track from headphones.

- For DVB mode
- UK only

Advanced settings

NICAM

(On / Off)

Near Instantaneous Companded Audio Multiplex

Reproduces NICAM stereo sound.

- Set to Off if reception is poor. (FM monaural sound)
- For Analogue mode

Audio Preference

(Multichannel / Stereo / MPEG)

Selects the initial setting for audio tracks.

Multichannel:

The priority is given to multi-channel audio track.

Stereo:

The priority is given to stereo (2ch) audio track.

MPEG:

The priority is given to MPEG.

- MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality.
- For digital mode
- Ireland only

SPDIF Selection

(Auto / PCM)

Selects the initial setting for digital audio output signal from DIGITAL AUDIO and HDMI2 (ARC function) terminals.

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM. DTS is output as DTS for video contents of Media Player / Network services.

  PCM:

  Digital output signal is fixed to PCM.

- ARC (Audio Return Channel) is a function of digital audio output using HDMI cable.
- For Digital TV or video contents of Media Player / Network services

  → Media Player > Video mode > Audio output settings

  → Home network > Videos > Audio output settings

SPDIF Delay

Adjusts the delay time of the sound output from DIGITAL AUDIO and HDMI2 (ARC function) terminals if the sound does not synchronise the image.

- For digital mode
- Ireland only

HDMI1 / 2 / 3 Input

(Digital / Analogue)

Selects to fit the input signal.

→ Watching > External equipment > HDMI features

Digital:

When sound is carried via the HDMI cable connection

Analogue:

When sound is not carried via the HDMI-DVI adaptor cable connection

- For HDMI input

Reset to Defaults

Resets the current Sound Mode to the default settings.

Network

Network Connection

Sets the network setting to use this TV in your network environment.

→ Internet service > Network settings

→ Home network > Network settings

Network Status

Displays and checks the network status (MAC Address, current network settings, etc.).

→ Internet service > Network settings > Network Status

→ Home network > Network settings > Network Status

TV Remote App Settings

Sets to control the TV from network equipment (smartphone, etc.).

→ Home network > Network settings > TV Remote App Settings

Network Link Settings

Sets to control the TV with devices connected to the network.

→ Home network > Network settings > Network Link Settings

Other settings

Software Update

Checks for available software updates from the Panasonic website.

→ Internet service > Network settings > Software Update

→ Home network > Network settings > Software Update

New Software Message

(On / Off)

Selects whether to give a notification message when new software is found via network or not.

→ Internet service > Network settings > New Software Message

→ Home network > Network settings > New Software Message

Timer

Off Timer

Sets the duration of time until the TV automatically goes into Standby mode.

(90 / 75 / 60 / 45 / 30 / 15 / Off (minutes))

→ Watching > Basic > Off Timer

Timer Programming

Sets a timer to record or remind forthcoming programmes.

→ Recording > Timer Programming

- For Digital TV

Time Zone

Adjusts the time data.

- The time data will be corrected based on GMT.
- Ireland only

Auto Standby

Automatically turns the TV to Standby mode for energy saving when no operation is performed for 4 hours.

(On / Off)

- Starting Timer Programming automatically does not affect this function.
- 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.

No signal Power off

Automatically turns the TV to Standby mode to prevent unnecessary power consumption when no signal is received and no operation is performed for 10 minutes.

(On / Off)

- The notification message will appear 3 minutes before going into Standby mode.

Setup

Eco Navigation

Automatically sets the TV to the most suitable energy-saving mode.

The concerned items and their current settings are displayed. Select Set to Eco to set them to the energy-saving settings at once.

Voice Control Settings

Settings for Voice Control function.

→ Functions > Voice Control > Preparations

TV Guide Settings

TV Guide View

(Normal / Full / Info)

Changes the layout of TV Guide.

Normal:

Default TV Guide screen

Full:

Displays channels and programmes full-screen without the operation guide

Info:

Displays details of the selected programme at the bottom without the operation guide

USB Device Setup

Formats the USB HDD or safely removes USB device.

→ Recording > USB HDD setup > Setting for USB HDD

Recording Setup

Settings for the recording feature of the USB HDD

→ Recording > Recording current programme

Touch Pen Setup

Pairing

Registers the Electronic Touch Pen (supplied) to this TV.

Unpair

Cancels pairing all the registered Electronic Touch Pen.

Safety Precautions

Displays the precautions for using the Electronic Touch Pen.

VIERA Touch Pad Controller

Pairing

Registers the VIERA Touch Pad Controller (supplied) to this TV.

- Only 1 touch pad controller can be registered.

Cursor Settings

Sets for the cursor of the touch pad controller.

Operation Guide

Displays the operation guide of Touch Pad Controller.

Bluetooth Setup

Settings for the specific devices supporting Bluetooth wireless technology

→ Functions > Bluetooth devices > Bluetooth Setup

Child Lock

Applies access control for channels or inputs to prevent unwanted access.

→ Functions > Child Lock

Tuning Menu

Favourites Edit

Creates a list of favourite channels.

→ Watching > Tuning and editing channels > Favourites Edit

- Not valid in Analogue mode

Channel List

Skips unwanted channels or edits channels.

→ Watching > Tuning and editing channels > Channel List

Regional Channel Edit

Replaces your regional channels with available channels from another region.

- For freesat mode

Auto Setup

Automatically searches for receivable channels.

→ Watching > Tuning and editing channels > Auto Setup

Channel Sorting by Region

Automatically sorts tuned channels according to the available region.

→ Watching > Tuning and editing channels > Channel Sorting by Region

- For DVB mode
- UK only

Manual Tuning

Searches for channels manually.

→ Watching > Tuning and editing channels > Manual Tuning

- Not valid in freesat mode

Update Channel List

Updates the channel list while keeping your settings.

→ Watching > Tuning and editing channels > Update Channel List

- For DVB mode

New Channel Message

(On / Off)

Selects whether to give a notification message when a new channel is found or not.

→ Watching > Tuning and editing channels > New Channel Message

- For DVB mode

Signal Condition

Checks the signal condition.

→ Watching > Tuning and editing channels > Signal Condition

- Not valid in Analogue mode

Dual Tuner Mode

(On / Off)

Set to On to use dual tuner function.

- For freesat / Other Sat. (UK)

Add New Channels

Adds new Other Satellite channels to the channel list.

- For Other Sat. (UK) / Satellite (Ireland) mode

= Note =

- The settings in Tuning Menu are applicable only for the selected TV mode. The menu name varies depending on the TV mode. (freesat Tuning Menu / DVB Tuning Menu / Analogue Tuning Menu / Other Sat. Tuning Menu / Satellite Tuning Menu)

Language

Preferred Multi Audio

(English / Welsh / Gaelic / Irish)

Selects the preferred language for digital channel multi audio (depending on the broadcaster).

- UK only

Preferred Audio 1 / 2

Selects the first and second preferred language for digital channel multi audio (depending on the broadcaster).

- Ireland only

Preferred Subtitles 1 / 2

Selects the first and second preferred language for digital channel subtitles (depending on the broadcaster).

- Ireland only
- To display subtitles

  → Watching > Basic > Subtitle

Preferred Subtitles

(English / Welsh / Gaelic / Irish)

Selects the preferred language for digital channel subtitles (depending on the broadcaster).

- To display subtitles

  → Watching > Basic > Subtitle

- provides aids in understanding and enjoyment with subtitles (depending on the broadcaster).
- UK only

Preferred Teletext

Selects the preferred language for digital channel teletext service (depending on the broadcaster).

- Ireland only

Display Settings

Preferred Subtitle Type

(Standard / Hard of Hearing)

Selects the preferred subtitle type.

- Preferred Subtitles 1 / 2 in Language are given priority.
- Hard of Hearing provides aids in understanding and enjoyment with digital channel subtitles (depending on the broadcaster).
- Ireland only

Teletext

(FASTEXT / List)

Selects analogue teletext display mode.

→ Watching > Teletext > Teletext mode

Teletext Character Set

(West / East1 / East2)

Selects teletext language font.

West:

English, French, German, Greek, Italian, Spanish, Swedish, Turkish, etc.

East1:

Czech, English, Estonian, Lettish, Rumanian, Russian, Ukrainian, etc.

East2:

Czech, Hungarian, Lettish, Polish, Rumanian, etc.

- Ireland only

Input Labels

Accesses the input labels list to select the label of each input mode or set to skip unconnected one for easier identification and selection in TV Selection, Input Selection or banner.

→ Watching > Basic > Selecting channel

→ Watching > External equipment > Watching external input

- To name each input mode freely, select User input and set characters (maximum 10 characters).
- To skip the input mode, select Skip.

Banner Display Timeout

(10 / 9 / 8 / 7 / 6 / 5 / 4 / 3 / 2 / 1 / 0 (No display) (seconds))

Sets how long the information banner stays on screen.

Smart VIERA Banner

(On / Off)

Displays the introduction banner for the internet service.

- For Full Screen TV

Playing Time Display

(On / Off)

Set to On to display a time period of continuous use in Game mode on the top right of the screen every 30 minutes.

- This function is available when Game Mode is set to On.

  → Settings > Picture > Option Settings

Radio Mode

(20 / 15 / 10 / 5 / Off (seconds))

Sets the timer for turning off the screen automatically when a radio channel is selected.

- The sound is active even if the screen turns off. This function is effective in reducing power consumption when listening to a radio channel.
- Press any buttons except Standby, Volume Up / Down and MUTE to turn the screen on.
- Not valid in Analogue mode

VIERA Link Settings

VIERA Link

(On / Off)

Sets to use VIERA Link functions.

→ Functions > VIERA Link "HDAVI Control™"

Power on Link

(On / Off)

Sets to use Power on Link functions.

→ Functions > VIERA Link "HDAVI Control™" > Power on Link

Power off Link

(On / Off)

Sets to use Power off Link functions.

→ Functions > VIERA Link "HDAVI Control™" > Power off Link

Standby Power Save

(On / Off)

Controls the connected equipment to reduce power consumption in Standby.

→ Functions > VIERA Link "HDAVI Control™" > Standby Power Save

- This function is available when VIERA Link is set to On and Power off Link is set to On.

Intelligent Auto Standby

(On / Off)

Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption.

→ Functions > VIERA Link "HDAVI Control™" > Intelligent Auto Standby

- This function is available when VIERA Link is set to On.

Professional Mode (isfccc)

Enables the professional picture settings.

Set to On to display the modes of Professional1 and Professional2 in Viewing Mode.

- isfccc is the picture setting for the certified professional dealer. For details, consult your local dealer.

System Menu

Keyboard Layout

Selects the language that your USB or Bluetooth Keyboard supports.

- For information of using Keyboard

→ Functions > Keyboard / Gamepad > Keyboard

Shipping Condition

Resets all settings to the original condition.

→ Functions > Shipping Condition

Common Interface

Sets to watch encrypted channels, etc.

→ Functions > Common Interface

System Update

Downloads new software to this TV.

→ Functions > Updating the TV Software

Licence Menu

Displays the software licence information.

Other Settings

Power on Channel List

(All Channel List / Last)

Automatically selects All Channels or Favourites list in the information banner when the TV is turned on.

- Set to All Channel List to display all the channels. Set to Last to display the one you selected last time.
- Not valid in freesat or Analogue mode

USB Charge in Standby

(On / Off)

Enables to supply the power from the USB port in Standby mode.

- Available for charging the rechargeable 3D Eyewear (optional accessory)
- This function is available when in Standby mode.

Power Save

(On / Off)

Reduces brightness of the picture to economise on power consumption.

Support

FAQs

Picture

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Auto aspect

- Auto aspect is designed to provide you with the best ratio to fill the screen.

  → Watching > For best picture > Aspect Control Signal

- Press ASPECT if you want to change the aspect ratio manually.

  → Watching > For best picture > Aspect

Black and white picture

- Check that the output of the external equipment matches the input of the TV. When connecting with SCART, ensure the output setting of the external equipment is not S-Video.

Chaotic image, noisy

- Set Noise Reduction and MPEG Remaster in the Picture Menu to remove noise.

  → Settings > Picture > Noise reduction settings

- Check nearby electrical equipment (car, motorcycle, fluorescent lamp).

No image can be displayed

- Check all required cables and connections are firmly in place.
- Check the correct input mode is selected.
- Check the setting of AV2 (COMPONENT / VIDEO) in Input Selection to match the output of the external equipment.

  → Watching > External equipment

- Is Contrast, Brightness or Colour in the Picture Menu set to the minimum?

  → Settings > Picture > Basic settings

Blurry or distorted image (no sound or low volume)

- Reset channels.

  → Watching > Tuning and editing channels > Auto Setup

Digital TV

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Block noise, frozen or disappearing image occurs / Some channels cannot be tuned

- Check the position, direction and connection of the aerial or dish.
- Check Signal Condition. If Signal Quality is displayed in red, the DVB signal is weak. Connecting the aerial to the TV directly may improve signal quality than connecting the aerial through the equipment (set top box, DVD, etc.).

  → Watching > Tuning and editing channels > Signal Condition

  → Watching > Basic > Basic connection
- Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather, the high pressure can cause poor reception of some channels.
- Due to the digital reception technologies involved, quality of the digital signals may be relatively low in some cases, despite good reception of analogue channels.
- Turn the TV off with Mains power On / Off switch, and then on again.
- If the problem persists, consult your local dealer or service provider for the availability of services.

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freesat Auto Setup cannot be done completely

- Check connections and dish alignment. The dish needs to be pointing at Astra2 at 28.2° East, and Eurobird1 at 28.5° East.
- If the problem persists, consult your freesat registered retailer or call Freesat (UK) Ltd on 08450 990 990 or visit www.freesat.co.uk

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Faulty dish message appears

- The satellite cable may be short-circuited or there may be connection problems of the cable. Check the cable and connection and then turn the TV off with Mains power On / Off switch, and turn it on again.
- If the message persists, consult a dish installer for checking the dish and cable.

No programmes shown on TV Guide

- Check the digital transmission by contacting Digital UK on 08456 50 50 50 or at the following website.

  www.digitaluk.co.uk
- Consult an aerial or dish engineer to check the alignment of your aerial or dish.

Cannot find a channel you have previously watched

- The channel may broadcast for part of the day.
- Check the channel in the TV Guide.

  → Watching > TV Guide
- Channel position numbers may be changed by broadcasters.
- Reset channels.

  → Watching > Tuning and editing channels > Auto Setup

Analogue TV

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow image (ghosting) occurs / Some channels cannot be tuned

- Check the position, direction and connection of the aerial.
- Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather, the high pressure can cause poor reception of some channels.
- Turn the TV off with Mains power On / Off switch, and then on again.
- If the problem persists, consult your local dealer or service provider for the availability of services.

No programmes shown on TV Guide

- Adjust the direction of the aerial to another transmitter installed nearby.
- Check the analogue broadcast. If the image quality is poor, check the aerial and consult your local dealer.
- Check the analogue broadcast (if still available in your area).

Sound

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

No sound is produced

- Is “Sound mute” active? Press MUTE to switch sound mute on or off.
- Is the volume set to the minimum?
- Check connections and setting of external equipment.

  → Watching > External equipment
- Ensure that Speaker Selection is set to TV.

  → Functions > VIERA Link “HDAVI Control™” > Speaker Selection

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Sound level is low or sound is distorted

- Sound signal reception may be poor.
- Set NICAM in the Sound Menu to Off. (Analogue)

  → Settings > Sound > Advanced settings

Unusual sound from the TV

- When the power is on, whirring sound of cooling fan or drive noise may be heard from inside the TV (not a sign of faulty operation).

3D

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Cannot view 3D images

Cannot register a 3D Eyewear to the TV

- Has the 3D Eyewear been switched on and set to 3D mode?
- Is the battery installed correctly?

  → Watching > 3D > 3D Eyewear - Replacing battery
- Check the remaining battery level of the 3D Eyewear. (Battery status is displayed on the screen when the 3D Eyewear is turned on.) When the battery is running low, replace it with a new one.
- Use the 3D Eyewear within approx. 3.2 m from the TV. (The range may be shortened depending on the obstacles between the TV and the eyewear, or the surrounding environment.)
- Register again.

  → Watching > 3D > 3D Eyewear - Registration
- Does the 3D Eyewear support Bluetooth wireless technology?
- Ensure that 3D Mode Selection is set to 3D.

  → Watching > 3D > 3D Mode Selection
- Some 3D image signals may not be automatically recognised as 3D images. Set 3D Mode Selection (Manual) to match the picture format.

  → Watching > 3D > Viewing 3D
- For some people, the 3D images may be difficult to see, or cannot be seen, especially among users who have a different level of eyesight between the left and right eyes. Take necessary measures (wearing glasses, etc.) to correct your eyesight before use.

3D Eyewear is turned off automatically

- Check that there are no obstacles between the TV and the 3D Eyewear.

There is something wrong with the 3D images

- Check the setting of L/R Picture Swap or Edge Smoother.

  → Watching > 3D > 3D Settings

The indicator lamp does not light up when pressing Power button on the 3D Eyewear

- The battery may be running low or flat. Replace it with a new one.

  → Watching > 3D > 3D Eyewear - Replacing battery

HDMI

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Sound is unusual

- Set the sound setting of the connected equipment to “2ch L.PCM”.
- Check the HDMI1 / 2 / 3 Input setting in the Sound Menu.

  → Settings > Sound > Advanced settings

- If digital sound connection has a problem, select analogue sound connection.

  → Watching > External equipment > HDMI features

Pictures from external equipment are unusual when the equipment is connected via HDMI

- Check the HDMI cable is connected properly.

  → Watching > External equipment > External connection

- Turn the TV and equipment off, then turn them on again.
- Check an input signal from the equipment.

  → Watching > External equipment > Valid input signals

- Use equipment compliant with EIA/CEA-861/861D.

Network

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

Cannot connect to the network

- Check the LAN cable or wireless LAN is connected properly.

  → Internet service > Network connections

  → Home network > Network connections

- Check the connections and settings.

  → Internet service > Network settings

  → Home network > Network connections

  → Home network > Network settings

- Check the network equipment and network environment.
- The router may not be set to issue IP address automatically. If the network administrator prefers to allocate an IP address, set an IP address manually.

  → Home network > Network settings

- The router may be using MAC address filtering (security setting). Confirm the MAC Address of this TV and set the router to use it.

  → Settings > Network > Network Status

- If the problem persists, consult your Internet Service Provider or telecommunications company.

Cannot select the file during DLNA operations

- Is media server of the connected equipment prepared?

  → Home network > DLNA > Information

- Check applicable data format.

  → Home network > Technical information

- Check the settings of Network Link Settings.

  → Home network > Network settings > Network Link Settings

Cannot operate internet content

- Check the connections and settings.

  → Internet service > Network connections > Internet connection

  → Internet service > Network settings

- The server or connected line may be busy now.

Other

Before requesting service or assistance, please follow these simple guides to solve the problem.

If the problem still persists, please contact your local Panasonic dealer for assistance.

VIERA Link function does not work and an error message appears

- Check the connections.

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link

- Turn the connected equipment on and then switch the TV on.

  → Functions > VIERA Link “HDAVI Control™”

Parts of the TV become hot

- Even if 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.

Overcurrent error message appears

- The connected USB device may 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.

Built-in Camera does not work

- Ensure the built-in Camera is held up. When the application for camera operation is activated, the built-in Camera automatically pops up.
- Face recognition may not work properly depending on surrounding environment or condition (for example, darkened room, etc.).

The touch pad controller does not work or cannot be registered

- Are the batteries installed correctly?
- The batteries may be running low. Replace them with new ones.
- Register again.

  → Settings > Setup > VIERA Touch Pad Controller
- Use the touch pad controller within approx. 3.2 m from the TV. (The range may be shortened depending on the obstacles between the TV and the controller, or the surrounding environment.)

Voice Control function does not work

- Voice Control function may not work properly depending on the pronunciation, noise and network environment.
- For details

  → Functions > Voice Control

Permanently lit spots on screen

- Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.

Maintenance

Care and Cleaning

First, remove the mains plug from the socket outlet.

■ Display panel, Cabinet, Pedestal

Regular care:

Gently wipe the surfaces of the display panel, cabinet, or pedestal 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.

Information

Using Help menu

1. Display the menu with MENU
2. Select Help with △ / ▽ and press OK to access
3. Select TV Self Test / System Information / Device Information with △ / ▽ and press OK to access

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TV Self Test

Makes a diagnosis of picture or sound problems.

Follow the on-screen instructions.

System Information

Displays the system information of this TV.

Device Information

Displays the device information of this TV.

Optional accessories

Electronic Touch Pen

■ Electronic Touch Pen for Plasma TV

- TY-TP10E
  - You can paint and play games on the TV screen with this device.

    Functions > Electronic Touch Pen
  - Touch Pen applications of this TV are available only with this device.
  - This TV can be paired with up to 2 pieces of the Touch Pen simultaneously.

3D Eyewear

■ 3D Eyewear

- TY-ER3D4ME, TY-ER3D4SE (Rechargeable type)
  - If you need 3D Eyewear additionally, please purchase this optional accessory.
  - Use Panasonic 3D Eyewear supporting Bluetooth wireless technology.
  - For more information (English only):

    http://panasonic.net/viera/eu/

Wall-hanging bracket

■ Wall-hanging bracket

- TY-WK4P1RW
  - For 50 inches model
  - Tilting angle for the TV:

    0 (vertical) to 10 degrees
- TY-WK5P1RW
  - For 55 inches model
  - Tilting angle for the TV:

    0 (vertical) to 15 degrees
- TY-WK6P1RW
  - For 65 inches model
  - Tilting angle for the TV:

    0 (vertical) to 10 degrees

= Warning =

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

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