Panasonic

Model No.

eHELP

English

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How to use

■ Meaning of signs

OK :

Letters enclosed in brackets indicate remote control buttons.

Main Menu :

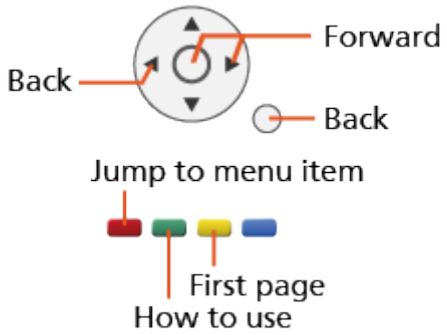
Letters in cyan indicate on-screen display items.

:

References in this eHELP

You can jump to the page by pressing OK while the cursor is on the references.

■ Operation guide



= Note =

- The design and specifications are subject to change without notice.
- The images shown in this eHELP are for illustrative purposes only.
- This eHELP covers all models, however, some features may not be available on certain models.
- Refer to the paper manual and the actual menu in the TV etc. to confirm your model's features.

Read first

Before use

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Contact Information: oss-cd-request@gg.jp.panasonic.com

The source code and the copyright notice are also available for free in our website below.

https://panasonic.net/cns/oss/tv/EUIDTV22.html

Note

- When using your own contents (music, video, picture, etc.) with this unit, pay attention not to harm the copyright, intellectual property, privacy, etc. of the subject. Pay attention to the privacy, image rights, etc. of display images, and use this unit at your own risk.
- Keep your personal information (password of broadband router, etc.) safe to prevent such information from being stolen by a third party while you input or display the information on the TV screen.

Features

4K resolution

You can watch content in 4K format that has twice the horizontal and vertical resolution of the 1080p signal.

Watching > 4K resolution > 4K-compatible equipment

Home

“Home” is a gateway to the TV programmes, applications and connected devices.

It provides you an easy way to access all the features.

Home > Home > Information

Freeview Play EPG

Using the Freeview Play EPG enables you to select a programme easily, view programme information, etc.

→ Watching > TV Guide > Freeview Play EPG (UK)

Dual Tuner

You can watch or record 2 programmes simultaneously, watch a programme while recording another programme, etc.

→ Functions > Multi Window > Multi Window

Easy Mirroring

You can watch and display images of other devices (smartphone, etc.) on the TV screen using a mirroring function. You can also start the mirroring function from the other devices without operating the TV.

→ Functions > Mirroring > How to use

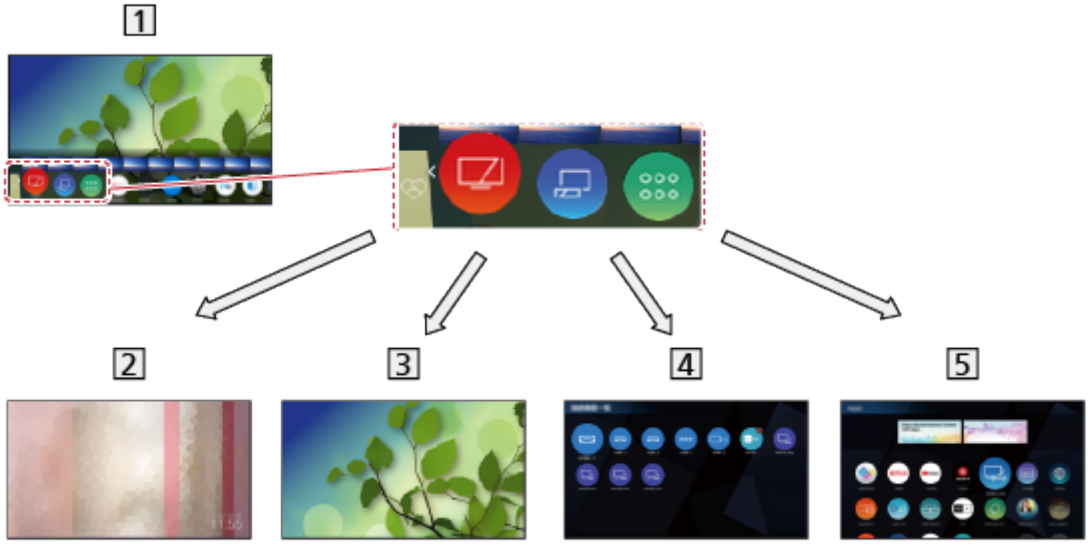
Home

Home

Information

“Home” is a gateway to the TV programmes, applications and connected devices.

Home is displayed by pressing HOME and it provides you an easy way to access all the features as shown below (example).



1 Home

2 my Scenery

– Displays the photos or videos stored in this TV, connected USB device, etc.

Home > my Scenery

3 Live TV

– Gateway to TV programmes

Home > Live TV

4 Devices

– Gateway to connected devices (HDMI equipment, USB device, network equipment, etc.)

Home > Devices

5 Apps

– Gateway to various applications (internet content, etc.)

Home > Apps

= Note =

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

Network > Network settings > Software Update

How to use

From Home, you can access all the features such as TV programmes, applications and connected devices.

- A broadband network environment is required to use internet services.

→ Network > Network connections > Internet connection

1. Display Home with HOME.

   (Example)

2. Select a feature (device / application / TV programme) and press OK to access.

- To watch full-screen TV, select Live TV.

  (Example)

- You can also select the content from the relevant programme information, recommended content, etc. by pressing △ for each feature.

= Note =

- The design and specifications are subject to change without notice.

■ Search

You can search for content from various sources.

- Ireland only

1. Display Home with HOME.
2. Select Search and press OK to access.

- A search history may be displayed and you can select it for keyword search.
- To delete the search history

  1) Select Search and press OPTION.

  2) Select Delete all histories and press OK.

3. Follow the on-screen instructions.

■ Freeview Play

- UK only

1. Start Freeview Play with PROVIDER LIST.
2. Follow the on-screen instructions.

- For Freeview (Channel list is alternatively displayed for the other modes.)

■ Auto Pin

Selects whether to automatically add a shortcut for a feature frequently used on Home.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Home Settings > Auto Pin and press OK to access.
3. Select On / Off and press OK to set.

■ Game Control Board

You can set up the picture settings for playing games in HDMI input or check the setting status.

1. Display Home with HOME.
2. Select Apps and press OK to access.
3. Select Game Control Board and press OK to access.
4. Follow the on-screen instructions.

- The setting items depend on the input signal or connected device.

Pin to HOME

You can add a shortcut for a frequently used feature on Home.

1. Display Home with HOME.
2. Select Devices / Apps / Live TV and press OK to access.
3. Select a feature (device / application / TV programme).
4. Display the option menu with OPTION.
5. Select Pin to HOME and press OK to set.
6. Select the position to add on Home and press OK to set.

- To remove a shortcut from Home, set Unpin from HOME.

Home > Home > Option menu

Option menu

You can customise Home.

1. Display the option menu with OPTION.
2. Select one of the following items and press OK to access.
   Unpin from HOME / Move / Sorting mode
3. Set the item and press OK to store.

Unpin from HOME

Removes a shortcut from Home.

Move

Arranges the position of the icons.

Sorting mode

Sorts the channels displaying on Home.

Devices

How to use

Connected devices (HDMI equipment, USB device, network equipment, etc.) can be accessed easily from Devices.

1. Display Home with HOME.
2. Select Devices and press OK to access.
   (Example)

   - To exit Devices

     EXIT

   - To add a shortcut icon

     Home > Home > Pin to HOME

3. Select a device and press OK to access.

- For external equipment

  Watching > External equipment

- For USB device

  Media Player > Using Media Player

- For network equipment

  Network > Home network

- For mirroring function

  Functions > Mirroring

= Note =

- The design and specifications are subject to change without notice.

Option menu

1. Display the option menu with OPTION.
2. Select one of the following items and press OK to access.

   Pin to HOME / Accessibility / Show Info.
3. Set the item and press OK to store.

Pin to HOME

Adds a shortcut for a frequently used feature on Home.

→ Home > Home > Pin to HOME

Accessibility

Voice Guidance Settings:

Guidance settings for visually impaired users

→ Watching > For best audio > Voice Guidance Settings

Voice Control:

Selects the voice service for Voice Control function.

→ Functions > Voice Control > Settings

Audio Description:

Narration settings for visually impaired users

→ Watching > For best audio > Audio Description

Dialogue Enhancement:

Enhances the intelligibility of dialogue and commentary.

→ Watching > For best audio > Volume settings

Preferred Subtitle Type:

Selects the preferred subtitle type.

→ Watching > Basic > Subtitle

Screen Display:

Turns the screen off when you select Off.

→ Watching > For best picture > Screen Settings

Radio Mode:

Sets the timer for turning off the screen automatically when a radio channel is selected.

→ Watching > Basic > Energy saving functions

Show Info.

Displays the information about the selected device.

Apps

How to use

Various applications (internet content, etc.) can be accessed easily from Apps.

1. Display Home with HOME.
2. Select Apps and press OK to access.

   (Example)

   - To exit Apps

     EXIT

   - To add a shortcut icon

     Home > Home > Pin to HOME

   - You can assign a favourite application to MY APP of the TV's remote control.

     Home > Apps > Option menu

3. Select an application and press OK to access.
4. Follow the on-screen instructions.

= Note =

- The design and specifications are subject to change without notice.
- Internet apps are provided by their service providers, and may be changed, interrupted, or discontinued at any time.
- A broadband network environment is required to fully use this function.

Option menu

1. Display the option menu with OPTION.
2. Select one of the following items and press OK to access.

   Pin to HOME / Set as My App / Move / Lock / Unlock / Uninstall / Show Info.
3. Set the item and press OK to store.

Pin to HOME

Adds a shortcut for a frequently used feature on Home.

Home > Home > Pin to HOME

Set as My App

Assigns your favourite application to MY APP of the TV's remote control.

- is displayed on the assigned application.
- To change the assignment, set Set as My App while the cursor is on another application.

Move

Arranges the position of the applications.

Lock, Unlock

Locks / unlocks a specific application to restrict access (if available).

- Child Lock PIN number is required to access to locked application.

Functions > Child Lock > PIN number

Uninstall

Deletes an application from Apps (if available).

Show Info.

Displays the information about the selected application.

Live TV

How to use

Live TV is a gateway to the TV programmes.

1. Display Home with HOME.
2. Select Live TV.
3. Press OK to access.
   (Example)

- For details of watching TV

  Watching > Basic

- To add a shortcut icon

  Home > Home > Pin to HOME

Option menu

1. Display the option menu with OPTION.
2. Select one of the following items and press OK to access.

   Pin to HOME / Accessibility / AV Options / Category
3. Set the item and press OK to store.

Pin to HOME

Adds a shortcut for a frequently used feature on Home.

→ Home > Home > Pin to HOME

Accessibility

Voice Guidance Settings:

Guidance settings for visually impaired users

→ Watching > For best audio > Voice Guidance Settings

Voice Control:

Selects the voice service for Voice Control function.

→ Functions > Voice Control > Settings

Audio Description:

Narration settings for visually impaired users

→ Watching > For best audio > Audio Description

Dialogue Enhancement:

Enhances the intelligibility of dialogue and commentary.

→ Watching > For best audio > Volume settings

Preferred Subtitle Type:

Selects the preferred subtitle type.

→ Watching > Basic > Subtitle

Screen Display:

Turns the screen off when you select Off.

→ Watching > For best picture > Screen Settings

Radio Mode:

Sets the timer for turning off the screen automatically when a radio channel is selected.

→ Watching > Basic > Energy saving functions

AV Options

Easy optional setting for viewing, sound, etc.

→ Watching > Basic > AV Options

- Menu items and selectable options vary depending on the TV mode.

Category

Changes the category of channels for selecting a channel from the channel list, information banner, etc.

- Ireland only

my Scenery

How to use

Some features are not available on all models. Available menu items are displayed on your TV screen.

Displays my Scenery from Home.

1. Display Home with HOME.
2. Select my Scenery by pressing ◁.
3. Press OK.
   (Example)

- Select a scenery and press OK to switch my Scenery.
- To exit my Scenery
  EXIT

= Note =

- The design and specifications are subject to change without notice.
- Viewing Mode is fixed to my Scenery when my Scenery is displayed.
- When no operation is performed for 15 minutes, the luminance level is automatically adjusted to prevent panel “image retention”.

■ Settings

You can set up the scenery (selecting contents stored in this TV or connected device, timer function, background music, etc.) and also view the guide screen.

1. Press OK while my Scenery is displayed.
2. Select the items and press OK to access.
3. Follow the on-screen instructions.

- Menu items and selectable options vary depending on the scenery.

= Note =

- A picture may not be displayed depending on its file size.
- The still pictures / moving pictures stored on the root directory can be selected and the files in the folders are not selectable.

Watching

Basic

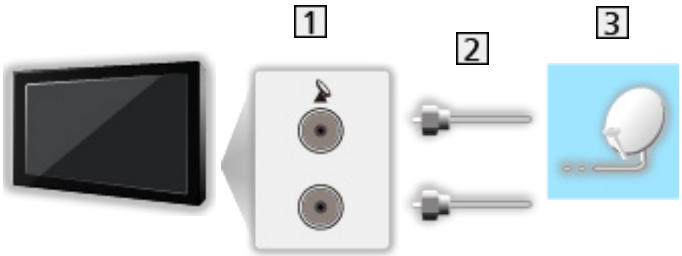
Satellite connection

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

- External equipment and cables shown are not supplied with this TV.
- For Satellite

■ Dual Tuner

Connecting both satellite terminals IN 1 and IN 2 to a satellite dish allows you to watch or record 2 satellite programmes simultaneously.



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. is not supported in single tuner mode.

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.
- 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 for connection.

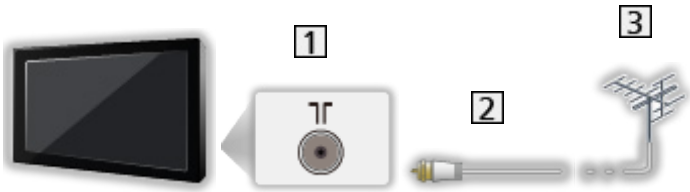
Basic connection

Some features are not available on all models.

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

- External equipment and cables shown are not supplied with this TV.

■ Aerial



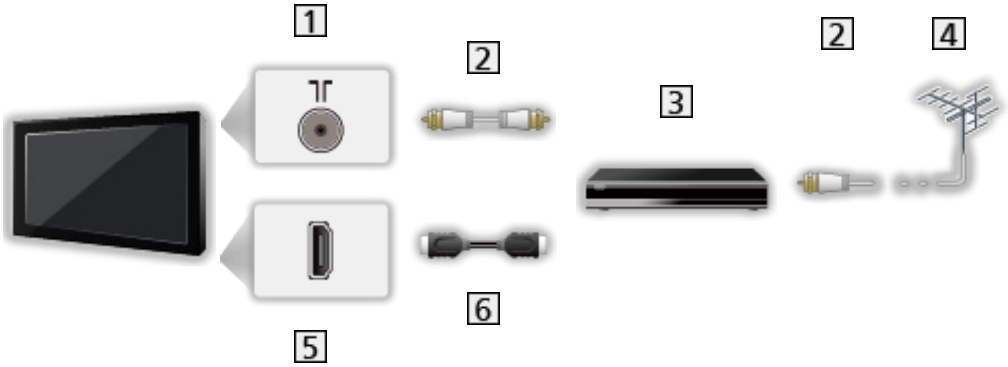
1 Terrestrial terminal

2 RF cable

3 Terrestrial aerial

- For digital, analogue

■ DVD Recorder / Blu-ray Recorder, etc.



1 Terrestrial terminal

2 RF cable

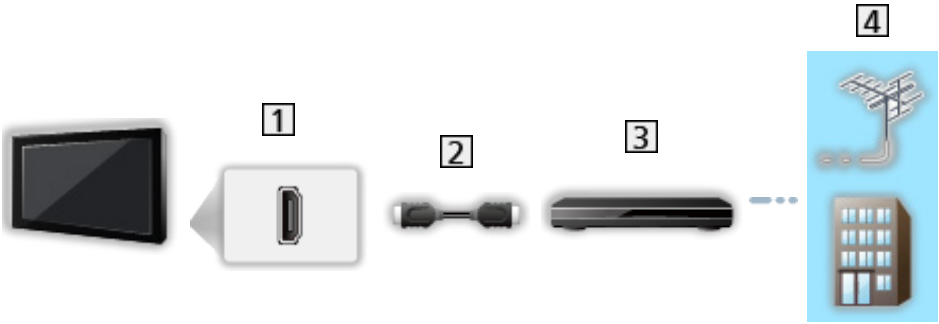
3 DVD Recorder / Blu-ray Recorder, etc.

4 Terrestrial aerial

5 HDMI terminal

6 HDMI cable

■ Cable TV box



1 HDMI terminal

2 HDMI cable

3 Cable TV box

4 Terrestrial aerial / Cable

= Note =

- For details of VIERA Link connections

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

- 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.
- Use a fully wired HDMI compliant cable.
- Use a high speed HDMI cable for high resolution images.
- Use a Premium High Speed HDMI cable for HDR images.
- Use a Ultra High Speed HDMI cable and connect to HDMI1 or HDMI2 for 4K high frame rate (120 Hz) images.
- Check the terminal type and cable plugs are correct for connection.

Selecting channel

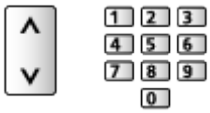
Some features are not available on all models.

1. Select the mode with TV.

   Freeview (UK only) / DVB (Ireland only) / Analogue / Satellite

   - Selectable modes vary depending on the channels stored.

2. Select a channel with Channel Up / Down or Numeric buttons.



   - DVB channel position begins from number 1 upward. Analogue channel position numbers are in the 0 - 99 range.

■ To select a channel using information banner

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

Watching > Basic > Information banner

Watching > Basic > Freeview Play banner (UK)

■ To select a channel using TV Guide

1. Display TV Guide with GUIDE.
2. Select the current programme and press OK to access.
   – The current programme is displayed on the top left of the screen.
3. Select Watch Now or View and press OK to watch.

- For Ireland

Watching > TV Guide > TV Guide

- For details of Freeview Play EPG

Watching > TV Guide > Freeview Play EPG (UK)

- Not valid in Analogue

■ To display Discover more (UK and Freeview only)

1. Display Discover more with Freeview Play.
2. Select the application and press OK to access.

- For the applications, follow the on-screen instructions.

■ To select the type of channel list

- For DVB (Ireland only), Satellite

Automatically selects all channels or favourites list in the information banner when the TV is turned on.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Other Settings > Power on Channel List and press OK to access.
3. Select All Channel List / Last and press OK to set.

■ To watch pay-TV

- For details 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.

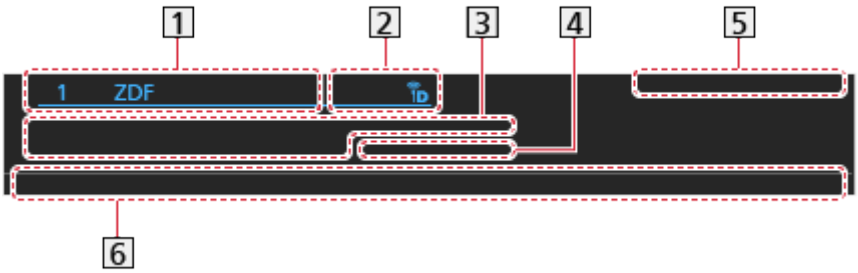
Information banner

Some features are not available on all models.

Display information banner with i.

- Also appears when changing a channel.
- The detailed information of the input signal (connected device information, or signal information such as resolution, HDR type, and ALLM information) is displayed when you press and hold i for 3 seconds in the external input mode (HDMI). Press it again to hide the information.
- For Satellite, Analogue, DVB (Ireland only)

(Example)



1 Channel position and name

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

3 Programme

Start time / End time (except Analogue)

Channel position, etc. (Analogue)

Progress time indicator of the selected programme (except Analogue)

4 Category

- To change the category (DVB)

Home > Live TV > Option menu

5 Date and time

6 Features available / message meanings

Bad signal:

Poor quality TV signal

DD, DD+, DAC4, HE-AAC:

Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos or HE-AAC audio track

AD:

Audio Description service available

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

Watching > For best audio > Audio Description

Also in HD :

Same programme available as HD broadcast (UK only)

- To display the extra information for details

i

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)

▷

- Extra information (DVB)

i

– Press again to hide the banner.

- To hide the banner

EXIT

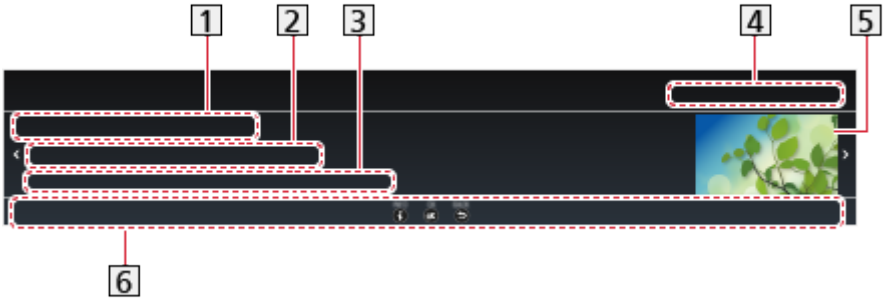
- To adjust banner timeout, set Banner Display Timeout.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Setup > Display Settings > Banner Display Timeout and press OK to access.
  3) Set the item and press OK to store.
- AD, STTL, TEXT, Multi Audio indications are 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.

Freeview Play banner (UK)

Display information banner with i.

- Also appears when changing a channel.
- The detailed information of the input signal (connected device information, or signal information such as resolution, HDR type, and ALLM information) is displayed when you press and hold i for 3 seconds in the external input mode (HDMI). Press it again to hide the information.
- For Freeview

(Example)



1 Channel position and name

2 Programme

3 Date / Start time / End time

4 Current date and time

5 Event image (when available)

6 Features available / message meanings

AD:

Audio Description service available

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

Watching > For best audio > Audio Description

SD:

SD broadcasts available

SD>HD:

Same programme available as HD broadcast

SL:

Sign language available

S:

Subtitle service available

- To confirm another tuned channel

  △ / ▽

- To watch the channel listed in the banner

  OK

- Information on the next programme

  ▷

- Extra information

  i

  – Press again to hide the banner.

- To hide the banner

  EXIT

- To adjust banner timeout, set Banner Display Timeout.

  1) Display the menu with MENU, select Main Menu and press OK to access.

  2) Select Setup > Display Settings > Banner Display Timeout and press OK to access.

  3) Set the item and press OK to store.

= Note =

- In Satellite, the information banner will appear when pressing i.

  Watching > Basic > Satellite banner

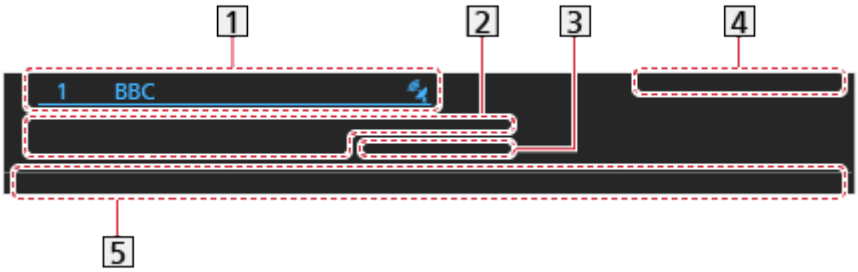
Satellite banner

Only for the model supporting the satellite reception

Display information banner with i.

- Also appears when changing a channel.
- The detailed information of the input signal (connected device information, or signal information such as resolution, HDR type, and ALLM information) is displayed when you press and hold i for 3 seconds in the external input mode (HDMI). Press it again to hide the information.
- For Satellite

(Example)



1 Channel position and name

2 Programme

Start time / End time

Progress time indicator of the selected programme

3 Category

4 Current time

5 Features available / message meanings

AD:

Audio Description service available

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

Watching > For best audio > Audio Description

SD:

SD broadcasts available

SD>HD:

Same programme available as HD broadcast

SL:

Sign language available

S:

Subtitle service available

- To confirm another tuned channel

  △ / ▽

- To watch the channel listed in the banner

  OK

- Information on the next programme

  ▷

- Extra information

  i

  – Press again to hide the banner.

- To hide the banner

  EXIT

- To adjust banner timeout, set Banner Display Timeout.

  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Setup > Display Settings > Banner Display Timeout and press OK to access.
  3) Set the item and press OK to store.

AV Options

Confirm or change the current status.

- Display the image full-screen to use this function.

1. Display the option menu with OPTION.
2. Select AV Options and press OK to access.
3. Select one of the following items and press OK to access.

   Audio Type / Multi Audio / Monaural Audio / Sub Channel / Subtitle Language / Teletext Character Set / Teletext Language / NICAM / Volume Correction

   - The function items vary depending on the TV mode and country you select.
4. Set the item and press OK to store.

Audio Type

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

- For digital
- To adjust the volume for Audio Description

  → Watching > For best audio > Audio Description
- Not valid in multi window mode

Multi Audio

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

- This setting is not stored and it returns to the default setting once you exit the current programme.
- For digital
- Multi Audio / AD is displayed instead of Multi Audio. (Ireland only)

Monaural Audio

Selects stereo / monaural (if available).

- This setting is not stored and it returns to the default setting once you exit the current programme.
- Not valid in Analogue

Sub Channel

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

- For Satellite

Subtitle Language

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

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

Teletext Character Set

Sets the teletext language font.

Watching > Teletext > Teletext Character Set

- Ireland only

Teletext Language

Selects between alternative languages for teletext (if available).

- For digital, Satellite

NICAM

Switches NICAM sound (if available).

Watching > For best audio > Advanced settings

- For Analogue

Volume Correction

Adjusts the volume of each individual channel or input mode.

Subtitle

Some features are not available on all models.

■ Freeview, DVB, Satellite

Display / hide subtitles (if available) with STTL.

- You can also display / hide subtitles from Subtitle in the menu.
  1) Display the menu with MENU.
  2) Select Subtitle, press OK and follow the on-screen instructions.
- To select the preferred subtitle type
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Setup > Display Settings > Preferred Subtitle Type and press OK to access.
  3) Select Standard / Hard of Hearing and press OK to set.
  – Hard of Hearing provides aids in understanding and enjoyment with digital channel subtitles (depending on the broadcaster).
  – Ireland only
- Preferred Subtitles 1 / 2 in Language are given priority.

  → Watching > Basic > Language

  – Ireland only

■ Analogue

Display subtitles with STTL.

- Hide subtitles with EXIT.

= Note =

- If you press STTL in Analogue, 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

Last view

Switch to a previously viewed channel or input mode easily with last view button.

(LAST VIEW)

- Press again to return to the current view.

= Note =

- Switching channel may not be available depending on the condition.
- Watching less than 10 seconds is not reflected in the previously viewed channel or input mode.

Off Timer

Switch to TV Standby mode automatically after a fixed period.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > Off Timer and press OK to access.
3. Select the time in 15-minute increments 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 is displayed on the bottom right of the screen.
- The remaining time will flash on the screen when less than 3 minutes.

Energy saving functions

The TV can be eco-friendly using energy-saving functions.

The TV goes into Standby mode in the following conditions:

- Eco Navigation is set to Set to Eco.
- Off Timer is active.

  → Watching > Basic > Off Timer
- No operation is performed for 4 hours while Auto Standby is set to On.
- No signal is received and no operation is performed for 10 minutes while No signal Power off is set to On.

= Note =

- This function does not affect the recording.

■ On Timer

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > On Timer and press OK to access.
3. Set On Timer to Off to continue the settings.
4. Set the item and press OK to store.

On Timer

Automatically turns the TV on at the set time with the preset channel, volume, etc.

Set to Off to edit the timer details or disable this function.

- LED lights orange in Standby mode when On Timer is set to On.

Repeat

Selects the day to repeat the set timer function.

- To cancel the repeat, disable all days.

Time

Sets the time to turn the TV on.

Time Voice Guidance

Sets the voice guidance of timer function.

Volume

Sets the volume when the TV is turned on by the set timer function.

---

my Scenery/TV/Input

Selects TV mode when the TV is turned on by the set timer function.

Channel

Selects a channel when the TV is turned on by the set timer function.

= Note =

- TV turns on at the set time and turns off automatically after 60 minutes by off timer function. Set Off Timer to Off to keep watching the TV.
- The timer function is activated every day of the week which is set in Repeat. When Repeat is not set, On Timer switches to Off after TV is turned on automatically.
- This function is not available when the TV is turned off with Mains Power On / Off switch.

■ Auto Standby

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > Auto Standby and press OK to access.
3. Select On / Off and press OK to set.

Auto Standby

(On / Off)

Automatically turns the TV to Standby mode for energy saving when no operation is performed for 4 hours.

- Automatic input switching with the connected equipment affects this function and time-count resets.
- A notification message will appear 3 minutes before going into Standby mode.
- Changing the default configuration may result in higher energy consumption of the product.

■ No signal Power off

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > No signal Power off and press OK to access.
3. Select On / Off and press OK to set.

No signal Power off

(On / 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.

- A notification message will appear 3 minutes before going into Standby mode.

■ Eco Navigation

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Eco Navigation and press OK to access.
3. Select Set to Eco and press OK to set.

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.

- Auto Standby and No signal Power off are active when Eco Navigation is set to Set to Eco.

■ Radio Mode

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Display Settings > Radio Mode and press OK to access.
3. Select the time and press OK to set.

Radio Mode

Sets the timer for turning off the screen automatically when a radio channel is selected.

(20 / 15 / 10 / 5 / Off (seconds))

- Sound is active even if the screen is turned off. This function is effective in reducing power consumption when listening to a radio channel.
- Press any buttons except Standby On / Off switch, Volume Up / Down or MUTE to turn the screen on.

- Not valid in Analogue

Adjusting time

Adjusts the time data.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > Time Zone and press OK to access.
3. Set the item and press OK to store.

- The time data are corrected based on GMT.
- Ireland only

Language

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Language and press OK to access.
3. Select one of the following items and press OK to access.

   Preferred Multi Audio / Preferred Audio 1 / 2 / Preferred Subtitles 1 / 2 / Preferred Subtitles / Preferred Teletext
4. Set the item and press OK to store.

Preferred Multi Audio

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).

- To display subtitles

  → Watching > Basic > Subtitle
- Ireland only

Preferred Subtitles

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

4K resolution

4K-compatible equipment

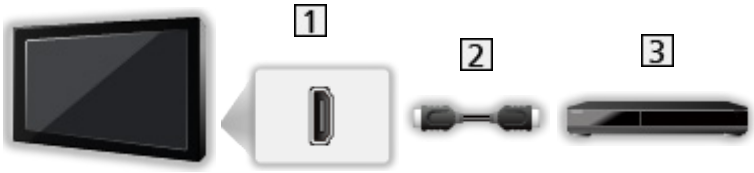
You can watch content in 4K format that has twice the horizontal and vertical resolution of the 1080p signal.

- For details of valid 4K format

  → Watching > 4K resolution > Valid 4K format

- Connect the 4K-compatible equipment to HDMI terminal using a 4K-compatible cable and you can watch content in 4K format.

■ 4K-compatible equipment



1 HDMI terminal

2 HDMI cable

3 4K-compatible equipment

- Check the terminal type and cable plugs are correct for connection.
- Use a fully wired HDMI compliant cable.
- Use a high speed HDMI cable for high resolution images.
- Use a Premium High Speed HDMI cable for HDR images.
- Use a Ultra High Speed HDMI cable and connect to HDMI1 or HDMI2 for 4K high frame rate (120 Hz) images.

HDMI Auto Setting

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > HDMI Auto Setting and press OK to access.
3. Set the item and press OK to store.

HDMI Auto Setting

(Mode1 / Mode2 / Mode3)

Reproduces the image more precisely with the expanded colour gamut and more smoothly with the high frame rate when connecting the 4K-compatible equipment. Mode2 is a mode that supports higher definition signals than Mode1. Mode3 is a mode that supports higher frame rate signals than Mode2. Set to Mode1 when the image or sound in HDMI input is not played properly.

Mode1:

For high compatibility. Set to Mode1 when the image or sound in HDMI input is not played properly.

Mode2:

For the 4K-compatible equipment that has the function to output the image precisely with the expanded colour gamut

Mode3:

For the 4K 120 Hz-compatible equipment that has the function to output the high frame rate image (This mode is available for HDMI1 / HDMI2.)

- Not valid when NVIDIA Auto Game Mode is set to On and some of NVIDIA PC graphics cards supporting HDMI 2.1 VRR are detected (HDMI Auto Setting is fixed to Mode3.)
- The setting can be stored for each HDMI input.
- Valid format (4K)
  - Mode1: 4:4:4 / 4:2:2 (30p, 25p, 24p), 4:2:0 (60p, 50p)
  - Mode2: 4:4:4 / 4:2:2 (30p, 25p, 24p), 4:4:4 / 4:2:2 / 4:2:0 (60p, 50p)
  - Mode3: 4:4:4 / 4:2:2 (30p, 25p, 24p), 4:4:4 / 4:2:2 / 4:2:0 (120p, 100p, 60p, 50p)

Valid 4K format

■ Valid 4K format (HDMI)

● 4K UHD

3 840 × 2 160 (120p, 100p, 60p, 50p, 30p, 25p, 24p)

– Aspect is fixed to 16:9.

= Note =

- The above signals are reformatted for optimal viewing on your display.
- Use HDMI1 / HDMI2 for the following 4K format.
  - 4K UHD 50 Hz / 60 Hz 4:4:4 (10 bit / 12 bit)
  - 4K UHD 100 Hz / 120 Hz
- For details of aspect

→ Watching > For best picture > Aspect

External equipment

External connection

Some features are not available on all models.

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 details of basic connection

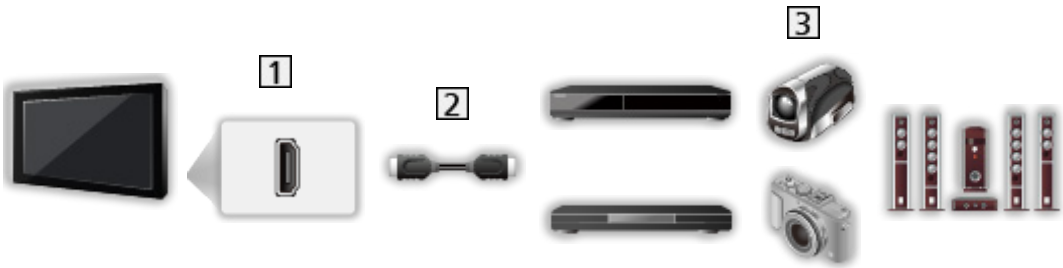
  → Watching > Basic > Basic connection

- To use the specific devices supporting Bluetooth wireless technology

  → Functions > Bluetooth devices

- Check the terminal type and cable plugs are correct for connection.
- External equipment and cables shown are not supplied with this TV.

■ HDMI equipment



1 HDMI terminal

2 HDMI cable

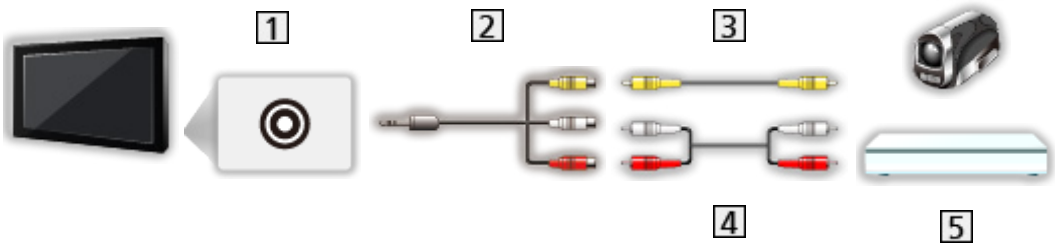
3 Recorder / Player / Cable TV box / Camcorder / Amplifier with speaker system / Game

= Note =

- Use a fully wired HDMI compliant cable.
- Use a high speed HDMI cable for high resolution images.
- Use a Premium High Speed HDMI cable for HDR images.
- Use a Ultra High Speed HDMI cable and connect to HDMI1 or HDMI2 for 4K high frame rate (120 Hz) images.
- For details of VIERA Link connections

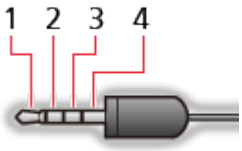
  Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link
- Use HDMI2 to connect the TV to an amplifier which has eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) function.
- Use HDMI1 / HDMI2 to connect the device that supports 4K high frame rate (120 Hz), VRR (Variable Refresh Rate), AMD FreeSync Premium function.

■ AV devices connecting to TV with AV (VIDEO) adaptor (not supplied)



1 AV IN (VIDEO) terminals

2 AV (VIDEO) adaptor (Shielded / not supplied)



1: L

2: Video

3: Ground

4: R

(3.5 mm mini plug)

3 Composite cable (Shielded)

- Use shielded composite cable.

4 Audio cables (Shielded)

- Use shielded audio cables.

5 Camcorder / Game equipment

■ USB devices

1 USB port

2 USB cable

3 USB HDD, etc.

= Note =

- It is recommended to connect the device to the TV's USB port directly.
- You cannot use two or more of the same kind of USB devices simultaneously except USB Flash Memory or USB HDD.
- Use USB 1 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.

■ Listening with external speakers

1 DIGITAL AUDIO

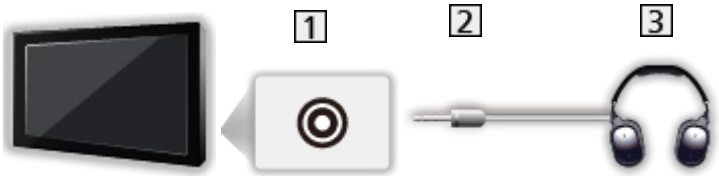
2 Optical digital audio cable

3 Amplifier with speaker system

- To enjoy multi-channel sound from external equipment (e.g. Dolby Audio (Dolby Digital) 5.1ch), connect the equipment to the amplifier. For information about the connections, read the manuals of the equipment and amplifier.
- To select the sound output to adjust the volume, set TV Speaker Setting.

→ Watching > For best audio > Volume settings

■ Headphones



1 Headphone / Subwoofer jack

2 3.5 mm stereo mini plug

3 Headphones

- To use headphones, set Headphone Terminal Output to Headphone.

  → Watching > For best audio > Headphone terminal output setting

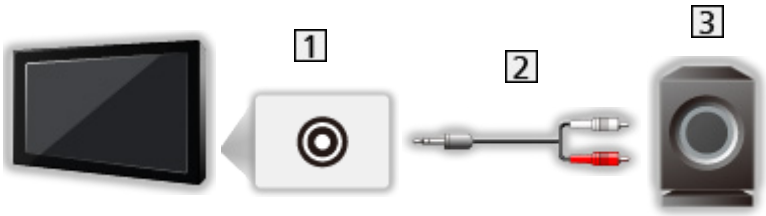
- Do not connect a sub woofer while Headphone Terminal Output is set to Headphone.
- To adjust the volume, set Headphone Volume.

  → Watching > For best audio > Headphone terminal output setting

- To select the sound output to adjust the volume, set TV Speaker Setting.

  → Watching > For best audio > Volume settings

■ Sub woofer



1 Headphone / Subwoofer jack

2 Audio cable (3.5 mm stereo mini plug - audio pin plug)

3 Sub woofer

- To use a sub woofer, set Headphone Terminal Output to Sub Woofer.

  → Watching > For best audio > Headphone terminal output setting

- Do not connect headphones while Headphone Terminal Output is set to Sub Woofer.
- To adjust the volume, set Sub Woofer Adjustment.

  → Watching > For best audio > Headphone terminal output setting

- The volume of the sub woofer can be also controlled when adjusting the volume of this unit with this TV's remote control.
- If the sub woofer unit has volume control, check the level as well.

Watching external input

Connect the external equipment (VCR, DVD, 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 and press OK to watch. (The selected mode is displayed on the top left of the screen.)

- You can also select the input pressing AV. Press repeatedly until the desired input is selected.
- You can label or skip each input mode. Skipped inputs will not be displayed when AV is pressed. (Input Labels)
- The remote control is capable of operating the content 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.

■ Input Labels

Accessing the input labels list allows you to change the input name or skip the input if unconnected, improving identification and selection in the Input Selection banner.

→ Watching > Basic > Information banner

→ Watching > Basic > Freeview Play banner (UK)

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Display Settings > Input Labels and press OK to access.
3. Set the item and press OK to store.

- To name each input mode freely, select User input and set characters (maximum 10 characters).
- To skip the input mode, select Skip.

■ Playing Time Display

Set to On to display a time period of continuous use in Game Mode on the top right of the screen every 30 minutes.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Display Settings > Playing Time Display and press OK to access.
3. Select On / Off and press OK to set.

- This function is available when Input Lag is set to Fast.

Operating with TV's remote control

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

▶ :

Playback (VCR / 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)

Press and hold to search backward (DVD / video content)

▶▶/⏭ :

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

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

Press and hold to 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, in-house streaming or 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

Some features are not available on all models.

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 to external 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 a fully wired HDMI compliant cable.

Watching > External equipment > External connection

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

■ Applicable HDMI features

- Input audio signal:

  LPCM, Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby TrueHD), Dolby Atmos

  – Audio settings can be made on HDMI Audio Format in the Sound Menu.

  Watching > For best audio > Advanced settings

- 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
- eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel)

  – eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) are functions to send digital sound signals via an HDMI cable.

  – For HDMI2

- x.v.Colour™
- 4K

  Watching > 4K resolution > Valid 4K format

- VRR (Variable Refresh Rate) / AMD FreeSync Premium
  - VRR (Variable Refresh Rate) / AMD FreeSync Premium provides smoother gaming experience with low latency and without image stuttering or tearing.
  - For HDMI1 / 2

■ 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.

- Depending on the model, composite cable (not supplied) may be necessary to connect to the audio input terminals.
- Enquire HDMI adaptor cable at your local digital equipment retailer shop.

= Note =

- Audio settings can be made on HDMI Audio Format / HDMI Input in the Sound Menu.

  → Watching > For best audio > 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 analogue input terminals to receive analogue signals.
- This TV incorporates HDMI™ technology.

HDMI HDR Setting

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > HDMI HDR Setting and press OK to access.
3. Set the item and press OK to store.

HDR Setting

(Dynamic / Static / Off)

Set to Dynamic or Static when the HDR device is connected to the TV.

- Please turn Off this function if the image looks unnatural. This may occur in some cases such as compatibility with the connected device, source images or with use of multi-window function.
- Image may disappear for a few seconds when the setting is changed.
- For HDMI

HDR Dynamic Setting

HDR10+ Functionality

(On / Off)

Enables the HDR10+ function for HDMI input signal.

Dolby Vision

(On / Off)

On:

Allows Dolby Vision processing to occur either on the TV or the source device mainly.

Off:

Disables Dolby Vision functionality.

= Note =

- Supporting HDR does not increase the peak brightness capabilities of the TV panel.

HDMI Signal Power Link Setting

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Other Settings > HDMI Signal Power Link Setting and press OK to access.
3. Set the item and press OK to store.

HDMI Signal Power Link Setting

Power on Link

(On / Off)

When the connected equipment is operated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off Link

(On / Off)

When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.

Link Terminal

Selects HDMI terminal to use the power link function.

Valid input signals

■ HDMI

Signal name
525 (480) / 60p
625 (576) / 50p
750 (720) / 60p, 50p
1 125 (1 080) / 60i, 50i
1 125 (1 080) / 120p, 100p, 60p, 50p, 24p
3 840 × 2 160 / 120p, 100p, 60p, 50p, 30p, 25p, 24p

= Note =

- Signals other than those above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- For details of valid 4K format

→ Watching > 4K resolution > Valid 4K format

For best picture

Viewing Mode

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Viewing Mode and press OK to access.
3. Select the mode and press OK to set.

Viewing Mode

(Dynamic / Auto AI / Normal / Professional Photo / Cinema / Filmmaker / True Cinema / Custom / Professional1 / Professional2 / Sport / Game / Dolby Vision Vivid / Dolby Vision IQ / Dolby Vision Bright / Dolby Vision Dark)

Selects your favourite picture mode for each input.

Dynamic:

Improves contrast and sharpness for viewing in a bright room.

Auto AI:

Adjusts the luminance, colour temperature, shades of black, etc. to suit your watching environment.

- To adjust the effect level, set Auto AI – Picture Effect Level.

Normal:

Normal use for viewing in a normal lighting condition.

Professional Photo:

Reproduces the original image for photo.

- For photo content

Cinema:

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

Filmmaker:

Reproduces the original image quality precisely. Reacts to room brightness.

True Cinema:

Reproduces the original image quality precisely without any revision.

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

- If a certified professional dealer sets these modes, Professional1 and Professional2 may be displayed as isf Day and isf Night.

Sport:

Improves picture quality for watching sports, etc.

- The sound mode is automatically set to Stadium when Viewing Mode is set to Sport. To cancel the linkage of the sound and viewing mode, set Sport Link to Off.

→ Watching > For best audio > Basic settings

Game:

Improves picture quality for playing games, etc.

- For HDMI, AV
- Input Lag is automatically set to Fast when Viewing Mode is set to Game.

→ Watching > For best picture > Option Settings

Dolby Vision Vivid:

Reproduces Dolby Vision content precisely in a bright room.

Dolby Vision IQ:

Automatically adjusts to reproduce Dolby Vision content according to the content, lighting condition, etc.

Dolby Vision Dark:

Reproduces Dolby Vision content precisely in a darkened room.

- The following items can be adjusted and stored for each mode.

  Luminance Level / Backlight / Contrast / Brightness / Colour / Tint / Sharpness / Colour Temperature / Colour Remaster / Rec.2020 Colour Remaster / Adaptive Backlight Control / Ambient Sensor Settings / Noise Reduction / MPEG Remaster / Resolution Remaster / Dynamic Range Remaster / Dark Visibility Enhancer / Intelligent Frame Creation

- This function can be stored respectively for input or TV mode.
- Viewing Mode is fixed to my Scenery when my Scenery is displayed.

■ Netflix Calibrated Mode

Reproduces the image quality based on the professional monitor settings while watching Netflix.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Netflix Calibrated Mode and press OK to access.
3. Select On / Off and press OK to set.

- Viewing Mode is fixed to Netflix when Netflix Calibrated Mode is set to On.
- For Netflix content

■ Auto AI – Picture Effect Level

Adjusts the effect level when Viewing Mode is set to Auto AI. The effect level is automatically higher when setting high.

- This function is available when Viewing Mode is set to Auto AI.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Auto AI – Picture Effect Level and press OK to access.
3. Set the item and press OK to store.

- Auto AI – Picture Effect Level is not available when 4K 120Hz Bypass Mode is set to On.

■ To change the viewing mode with PICTURE

You can change the viewing mode easily only by pressing PICTURE.

1. Display Viewing Mode with PICTURE.
2. Select the mode and press OK to set.

- You can also change the mode by pressing PICTURE.

  (Press repeatedly until you reach the desired mode.)
- To set the viewing mode selection

  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Picture > PICTURE Button Setting and press OK to access.
  3) Select the viewing mode to set.

Aspect

Some features are not available on all models. Available menu items are displayed on your TV screen.

Changes the aspect ratio (image size).

■ To change the aspect ratio manually

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Screen Settings and press OK to access.
3. Select Aspect and press OK to access.
4. Set the item and press OK to store.

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).

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.

= Note =

- Display the image full-screen to use this function completely.
- Aspect mode can be stored separately for SD (Standard definition) and HD (High definition) signals.
- Aspect cannot be changed in teletext service.
- Aspect is fixed to Auto when Viewing Mode is set to Filmmaker.
- Aspect is fixed to 16:9 in the following conditions:
  - Input Lag is set to Fast.
  - 4K content
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.

Aspect Control Signal

Some features are not available on all models.

Programmes usually contain an “Aspect Control Signal”. (Widescreen signal, Control signal through 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 HDMI terminal is found. The aspect switches 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:

  Satellite

- AV IN (VIDEO) terminals

  Valid input signal format:

  PAL

  PAL 525/60*

  M.NTSC*

  NTSC*

  * : Control signal through HDMI terminal only

- HDMI terminal

  Valid input signal format:

  525 (480) / 60p

  625 (576) / 50p

  750 (720) / 60p, 50p

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

  1 125 (1 080) / 120p, 100p, 60p, 50p, 24p

  3 840 × 2 160 / 120p, 100p, 60p, 50p, 30p, 25p, 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.
- For details of valid 4K format

  → Watching > 4K resolution > Valid 4K format

Basic settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture and press OK to access.
3. Select one of the following items and press OK to access.

   Luminance Level / Backlight / Contrast / Brightness / Colour / Tint / Sharpness / Colour Temperature / Colour Remaster / Rec.2020 Colour Remaster / Adaptive Backlight Control / Resolution Remaster / Dynamic Range Remaster / Dark Visibility Enhancer / Intelligent Frame Creation
4. Set the item and press OK to store.

Luminance Level, Backlight, Contrast, Brightness, Colour, Tint, Sharpness

Adjusts the levels of these options according to your personal preference.

- Sharpness is not available when Viewing Mode is set to Dolby Vision IQ or 4K 120Hz Bypass Mode is set to On.

Colour Temperature

Sets the overall colour tone of the picture (bluer - redder).

- Not valid when Viewing Mode is set to Dolby Vision IQ

Colour Remaster

(Max / Min / Off)

Displays the vivid images with the expanded colour gamut.

- Not valid in the following conditions:
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.

Rec.2020 Colour Remaster

(On / Off)

Displays the vivid images with the suitable colour gamut.

- Not valid in the following conditions:
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.
- This function is available only for Rec. 2020 and displayed instead of Colour Remaster.

Adaptive Backlight Control

Automatically controls the level of backlight according to the images.

Not valid when VRR is set to On

Resolution Remaster

(Auto / Max / Mid / Min / Off)

Enhances picture resolution to make the image sharper.

- Not valid in the following conditions:
  - Viewing Mode is set to Dolby Vision IQ.
  - 4K 120Hz Bypass Mode is set to On.

Dynamic Range Remaster

(On / Off)

Enhances bright areas of the image closer to the original luminance making improved picture impact.

- Not valid in the following conditions:
  - Multi window
  - HDR video signal
  - Viewing Mode is set to Sport or the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.

Dark Visibility Enhancer

Adjusts the black level or middle luminance level.

- Not valid when 4K 120Hz Bypass Mode is set to On

Intelligent Frame Creation

(Custom / Max / Mid / Min / Off)

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

- Depending on the content, images may be noisy. To prevent the noise, change the setting.
- Select Custom to set Intelligent Frame Creation manually.

  Blur Reduction:

  Adjusts the smoothness of camera content to minimise blur.

  Film Smooth:

  Adjusts the smoothness of film content.

  Reset to Defaults:

  Resets items for Intelligent Frame Creation.
- Not valid in the following conditions:
  - Input Lag is set to Fast.
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Photo content
  - Viewing Mode is set to Dolby Vision IQ.
  - 120 Hz video signal from 120 Hz-compatible equipment

  Auto AI – Film Interlock:

  Reproduces image more precisely for the film content. Set to Off when the image looks unnatural.

  - Set Viewing Mode to Auto AI to use this function.
  - Not valid in the following conditions:
    - Input Lag is set to Fast.
    - 1080p Pure Direct is set to On.
    - 4K Pure Direct is set to On.
    - Photo content
    - 120 Hz video signal from 120 Hz-compatible equipment

Accurate IFC:

Reproduces image like the original filming image for the film content. Set to Off when the image looks unnatural.

- Set Intelligent Frame Creation to Off to use this function.
- Not valid in the following conditions:
  - Input Lag is set to Fast.
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Photo content
  - 120 Hz video signal from 120 Hz-compatible equipment

Black Frame Insertion:

Makes the blurring image clearer for video content, etc.

- When Input Lag is set to Fast in HDMI input with the equipment supporting VRR function, the input lag may occur.
- Not valid in the following conditions:
  - Photo content
  - VRR is set to On.
  - Multi window
  - 4K 120Hz Bypass Mode is set to On.

Clear Motion:

Makes the moving pictures clearer.

- When Input Lag is set to Fast in HDMI input, the input lag may occur.

Ambient Sensor Settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Ambient Sensor Settings > Auto Brightness / Auto White Balance and press OK to access.
3. Set the item and press OK to store.

Auto Brightness

(On / Off)

Adjusts brightness automatically depending on ambient lighting conditions.

- This function may not be available when Viewing Mode is set to the mode of Dolby Vision.

Auto White Balance

(On / Off)

Adjusts the white balance depending on ambient lighting conditions.

- This function may not be available when Viewing Mode is set to the mode of Dolby Vision.

Noise reduction settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Noise Reduction / MPEG Remaster and press OK to access.
3. Set the item and press OK to store.

Noise Reduction

(Auto / Max / Mid / Min / Off)

Reduces unwanted picture noise.

- Not valid in the following conditions:
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Viewing Mode is set to Dolby Vision IQ.
  - 4K 120Hz Bypass Mode is set to On.

MPEG Remaster

(Auto / Max / Mid / Min / Off)

Reduces flicker noise in contoured parts of a picture and block noise.

- Not valid in the following conditions:
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Viewing Mode is set to Dolby Vision IQ.
  - 4K 120Hz Bypass Mode is set to On.

Advanced Settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

You can adjust and set up the detailed picture settings when Viewing Mode is set to Professional Photo, Cinema, Filmmaker, True Cinema, Custom, Professional1 / 2, Game, Dolby Vision IQ, Dolby Vision Bright or Dolby Vision Dark.

→ Watching > For best picture > Viewing Mode

1. Select the input mode with AV or TV.
2. Display the menu with MENU, select Main Menu and press OK to access.
3. Select Picture > Viewing Mode and press OK to access.
4. Select the mode and press OK to set.

   Professional Photo / Cinema / Filmmaker / True Cinema / Custom / Professional1 / Professional2 / Game / Dolby Vision IQ / Dolby Vision Bright / Dolby Vision Dark

■ Adjust the detailed picture settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Advanced Settings and press OK to access.
3. Select one of the following items and press OK to access.

   Contrast Control / Colour Gamut / Photo Colour Gamut / White Balance / Colour Management / Gamma / Dynamic HDR Effect / HDR Tonemap clipping / Reset to Defaults
4. Set the item and press OK to store.

■ Contrast Control

Contrast Control

(Custom / Auto / Off)

Automatically adjusts the detailed contrast settings. Select Custom to set Contrast Control Setting manually.

- Not valid in the following conditions:
  - Viewing Mode is set to Filmmaker.
  - Tonemap clipping is set to Clipping.
  - 4K 120Hz Bypass Mode is set to On.

Contrast Control Setting

- Not valid when 4K 120Hz Bypass Mode is set to On

  Adaptive Gamma Control:

  Adjusts the gamma curve to make the image brighter.

  Black Expander:

  Gradually adjusts the shades of black.

  Reset to Defaults:

  Resets items for Contrast Control Setting.

■ Colour Gamut / Photo Colour Gamut

Colour Gamut

(Native / Rec. 709 / SMPTE-C / EBU / Rec. 2020 / DCI-P3)

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

Rec. 2020:

Provides the suitable colour gamut for Rec. 2020.

DCI-P3:

Provides the suitable colour gamut for DCI.

- Set Colour Remaster to Off to use this function.
- Set Rec.2020 Colour Remaster to Off to use this function for the Rec. 2020 signal.
- Not valid in the following conditions:
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.
- Photo Colour Gamut is displayed for photo content instead of Colour Gamut.

Photo Colour Gamut

(Auto / sRGB / Adobe / Rec. 2020)

Auto:

Automatically adjusts the colour gamut according to the input signal.

sRGB:

Standard for sRGB

Adobe:

Standard for AdobeRGB

Rec. 2020:

Provides the suitable colour gamut for Rec. 2020.

- This function is available only for photo content.
- Not valid in the following conditions:
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.

■ White Balance

R-Gain / G-Gain / B-Gain

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

R-Cutoff / G-Cutoff / B-Cutoff

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

More Detailed Adjustment

Adjusts more detailed items for White Balance.

Input Signal Level:

Adjusts the input signal level.

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

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

Reset to Defaults:

Resets items for More Detailed Adjustment.

Reset to Defaults

Resets White Balance to the default settings.

■ Colour Management

- Not valid when 4K 120Hz Bypass Mode is set to On

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 items for Colour Management.

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

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

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

Adjusts the saturation of cyan / magenta / yellow areas.

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

Adjusts the luminance of cyan / magenta / yellow areas.

Reset to Defaults:

Resets items for More Detailed Adjustment.

Reset to Defaults

Resets Colour Management to the default settings.

■ Gamma

Gamma

Switches the gamma curve.

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

More Detailed Adjustment

Adjusts more detailed items for Gamma.

Input Signal Level:

Adjusts the input signal level.

Gain:

Adjusts the gain of gamma for selected signal level.

Reset to Defaults:

Resets items for More Detailed Adjustment.

Reset to Defaults

Resets Gamma to the default settings.

■ Dynamic HDR Effect

Dynamic HDR Effect

(On / Off)

Automatically adjusts the luminance according to an HDR video signal.

- Not valid in the following conditions:
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120Hz Bypass Mode is set to On.
  - Tonemap clipping is set to Clipping.

■ HDR Tonemap clipping

- Not valid when 4K 120Hz Bypass Mode is set to On

Tonemap clipping

(Normal / Clipping)

Automatically controls tonemap with content meta data.

- Not valid when Viewing Mode is set to Dolby Vision IQ or Dolby Vision Dark

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Clipping Threshold

Adjust clipping luminance (nit) of tonemap.

Reset to Defaults

Resets HDR Tonemap clipping to the default settings.

■ Reset to Defaults

Reset to Defaults

Resets Advanced Settings to the default settings.

Option Settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Option Settings and press OK to access.
3. Select one of the following items and press OK to access.

   Input Lag / ALLM / NVIDIA Auto Game Mode / VRR / Film Cadence Mode / 1080p Pure Direct / 4K Pure Direct / 4K 120Hz Bypass Mode / 60Hz Refresh Mode / HDMI Content Type / HDMI EOTF Type / EOTF Type / HDMI Colorimetry Type / HDMI RGB Range / HDMI YCbCr Range
4. Set the item and press OK to store.

Input Lag

(Auto / Fast / Normal)

Provides suitable images for fast response signals when playing games.

- To display a continuous record of time spent using Game Mode, set Playing Time Display.
- Not valid in the following conditions:
  - TV mode
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Viewing Mode is set to Game. (Input Lag is fixed to Fast.)
  - Viewing Mode is set to Dolby Vision IQ.
  - 4K 120Hz Bypass Mode is set to On.
  - VRR is set to On. (Input Lag is fixed to Fast.)

ALLM

(On / Off)

Automatically switches the TV to Game Mode according to the ALLM information when using this TV in single window mode.

- For HDMI
- Not valid in the following conditions:
  - Multi window
  - HDMI Auto Setting is set to Mode1.
  - NVIDIA Auto Game Mode is set to On and some of NVIDIA PC graphics cards supporting HDMI 2.1 VRR are detected. (ALLM is fixed to On.)

NVIDIA Auto Game Mode

(On / Off)

Set to On to enable NVIDIA HDMI 2.1 gaming function.

- For HDMI1 / 2
- Not valid in multi window mode

VRR

(On / Off)

Provides smoother gaming experience with low latency and without image stuttering or tearing. Set to On to enable VRR (Variable Refresh Rate) and AMD FreeSync Premium function when the equipment supporting VRR / AMD FreeSync Premium function is connected to this TV.

- For HDMI1 / 2
- Not valid in the following conditions:
  - Multi window
  - HDMI Auto Setting is set to Mode1 or Mode2.
  - NVIDIA Auto Game Mode is set to On and some of NVIDIA PC graphics cards supporting HDMI 2.1 VRR are detected. (ALLM is fixed to On.)

Film Cadence Mode

(Auto / 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 Input Lag is set to Fast).

1080p Pure Direct

(On / Off)

Reproduces the original image quality in detail for 1080p (HDMI) input signal.

- Not valid in the following conditions:
  - Multi window
  - Input Lag is set to Fast.
  - Viewing Mode is set to the mode of Dolby Vision.

4K Pure Direct

(On / Off)

Reproduces the original image quality in detail for 4K (HDMI) input signal.

- Not valid in the following conditions:
  - Multi window
  - Input Lag is set to Fast.
  - Viewing Mode is set to the mode of Dolby Vision.
  - 4K 120 Hz signal

4K 120Hz Bypass Mode

(On / Off)

Reproduces the original image quality in detail for 4K 120 Hz signal. Some picture menu items are not available when 4K 120Hz Bypass Mode is set to On.

- For 4K 120 Hz signal (HDMI1 / HDMI2)
- Not valid in the following conditions:
  - Multi window
  - Viewing Mode is set to the mode of Dolby Vision.

60Hz Refresh Mode

(On / Off)

Reduces the input lag when connecting 60Hz output game equipment.

- For HDMI, AV
- Not valid in the following conditions:
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - VRR is set to On.
  - Multi window

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
- Not valid when Viewing Mode is set to Professional Photo or the mode of Dolby Vision

---

HDMI EOTF Type

(Auto / Traditional gamma / HLG / PQ)

Selects the EOTF type for each HDMI input. Set to Auto for general use.

- For HDMI
- HDR10+ function is available when HDMI EOTF Type is set to Auto.
- Not valid when Viewing Mode is set to the mode of Dolby Vision

---

EOTF Type

(Auto / Traditional gamma / HLG / PQ)

Selects the EOTF type of broadcast or video content.

It works correctly only when the signal corresponds to each EOTF type. Set to Auto for general use.

- Automatically switches to Auto for broadcast each time another input / channel is selected.
- For digital, video content
- HDR10+ function is available when EOTF Type is set to Auto.
- Not valid when Viewing Mode is set to the mode of Dolby Vision

---

HDMI Colorimetry Type

(Auto / Rec. 601 / Rec. 709 / Rec. 2020)

Selects the colourimetry type for each HDMI input.

- For HDMI
- Not valid when Viewing Mode is set to the mode of Dolby Vision

---

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
- Not valid when Viewing Mode is set to the mode of Dolby Vision

---

HDMI YCbCr Range

(Auto / Full / Normal)

Adjusts the black level of the image in the YCbCr signal for each HDMI input.

- For HDMI
- Not valid when Viewing Mode is set to the mode of Dolby Vision

Screen Settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Screen Settings and press OK to access.
3. Select one of the following items and press OK to access.

   Aspect / 16:9 Overscan / Zoom Adjustments / Screen Display / Pixel Orbiter / Logo Luminance Control / Panel Maintenance
4. Set the item and press OK to store.

Aspect

Changes the aspect ratio (image size).

Watching > For best picture > Aspect

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 stored for SD (Standard definition) and HD (High definition) signals respectively.
- Not valid in the following conditions:
  - Photo content
  - Input Lag is set to Fast.
  - 4K content
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - Multi window

Zoom Adjustments

Adjusts the vertical position and size when aspect is set to Zoom.

- Not valid in the following conditions:
  - 4K content
  - Multi window

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 On / Off switch) to turn the screen on.

Pixel Orbiter

(On / Off)

Sets the pixel shifting of the image to prevent panel “image retention”.

Logo Luminance Control

(Max / Mid / Min)

Adjusts the luminance level of the displayed logo to prevent panel “image retention”.

Panel Maintenance

Turns the screen off and perform the maintenance to prevent the panel “image retention”.

- It takes approx. 10 minutes to finish the maintenance.
- LED lights orange during adjustment of the panel.
- To cancel the maintenance, turn the TV on while the maintenance is in progress.
- Completion message will be displayed when turning the TV on after panel maintenance.

Lock Settings

Locks the settings of Professional1 / 2 / Dolby Vision IQ / Dolby Vision Dark for each input.

- Select Professional1 / Professional2 / Dolby Vision IQ / Dolby Vision Dark in Viewing Mode in advance.

Watching > For best picture > Viewing Mode

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Picture > Lock Settings 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 and press OK to access.
5. Select On and press OK to set.

- The following items can be locked.

  Luminance Level / Contrast / Brightness / Colour / Tint / Sharpness / Colour Temperature / Resolution Remaster / Dynamic Range Remaster / Black Frame Insertion / Advanced Settings / Reset to Defaults

■ To change the PIN number

1. Select Change PIN and press OK to access.
2. Enter a new PIN number twice with Numeric buttons.

Copy Adjustment

Copies the picture settings of Filmmaker, True Cinema, Custom, Professional1, Professional2, Game, Dolby Vision IQ, Dolby Vision Bright or Dolby Vision Dark to those of the other input mode or Viewing Mode.

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

= Note =

- Option Settings and Screen Settings are not copied.
- You cannot copy to the locked mode.

For best audio

Sound mode

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > Mode and press OK to access.
3. Select the mode and press OK to set.

Mode

(Auto AI / Standard / Music / Speech / Stadium / User)

Selects your favourite sound mode for each input.

Auto AI:

Adjusts the sound quality to suit your watching environment.

- To adjust the effect level, set Auto AI – Sound Effect Level.

Standard:

Provides the suitable sound quality for all types of scenes.

Music:

Improves sound quality for watching music videos, etc.

Speech:

Improves sound quality for watching news, drama, etc.

Stadium:

Improves sound quality for watching sports, etc.

- The sound mode is automatically set to Stadium when Viewing Mode is set to Sport. To cancel the linkage of the sound and viewing mode, set Sport Link to Off.

→ Watching > For best audio > Basic settings

User:

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

- The following items can be adjusted and stored for each mode.

  Bass / Treble / Surround / Bass Boost

- For the User mode, Equaliser is available in the Sound Menu instead of Bass and Treble. Select Equaliser and adjust the frequency.

→ Watching > For best audio > Basic settings

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

■ Auto AI – Sound Effect Level

Adjusts the effect level when Mode is set to Auto AI. Setting low is close to the standard sound and high can provide a dynamic sound effect.

- This function is available when Mode is set to Auto AI.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > Auto AI – Sound Effect Level and press OK to access.
3. Set the item and press OK to store.

- Auto AI – Sound Effect Level is not available when 4K 120Hz Bypass Mode is set to On.

Line Array Speaker Sound Focus settings

Only for the model with the line array speakers

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > Sound Focus Mode and press OK to access.
3. Set the item and press OK to store.

Sound Focus Mode

(Off / Pinpoint / Spot / Area / Ambient)

Selects your favorite Sound Focus mode.

Off:

Provides the suitable sound quality for general use (standard sound).

Pinpoint:

Provides the voice sound to the specific direction with beamforming. It is suitable to hear the sound alone.

Spot:

Provides the both standard sound and Pinpoint. It is suitable to turn the personal volume up in a group.

Area:

Provides the listening area in your environment. It is suitable to output the sound to one of the connecting rooms.

Ambient:

Standardises the sound output of your room and provides the relaxing sound like a coffee shop's BGM.

- The sound position can be adjusted in Sound Focus Positioning.
- This function is effective only for the sound from TV speakers.
- When this unit is turned off and on while the favourite mode is set, the setting mode switches to Off.
- When Sound Focus Mode is set to an item other than Off, Space Tune function may weaken.
- Sound Field Creation is not available when Sound Focus Mode is set to Pinpoint, Area or Ambient.
- Dolby Atmos is not available when Sound Focus Mode is set to Pinpoint, Spot, Area or Ambient.

Basic settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound and press OK to access.
3. Select one of the following items and press OK to access.

   Bass / Treble / Equaliser / Balance / Sound Focus Positioning / Dolby Atmos / Sound Field Creation / Surround / Bass Boost / Sport Link
4. Set the item and press OK to store.

Bass

Adjusts level to enhance or minimise lower, deeper sound output.

- Not valid when Mode is set to Auto AI

Treble

Adjusts level to enhance or minimise sharper, higher sound output.

- Not valid when Mode is set to Auto AI

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 adjust the frequency level.
- 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 and press OK.
- This function is effective only for the sound from TV speakers.

Balance

Adjusts the volume level of right and left speakers.

Sound Focus Positioning

(Pinpoint Positioning / Spot Positioning / Area Positioning)

Adjusts the sound focusing position and balance for line array speakers.

Pinpoint Positioning:

Adjusts the position of Pinpoint.

Spot Positioning:

Adjusts the position of Spot.

Area Positioning:

Adjusts the position for Area.

- The setting of adjusting position is stored. Select Reset to Defaults to reset to the default position.
- This function is available when Sound Focus Mode is set to Pinpoint, Spot or Area.

Dolby Atmos

(On / Off)

Provides the precise sound of Dolby Atmos when playing Dolby Atmos content. Set to On for general use.

- Not valid in the following conditions:
  - Mode is set to Auto AI.
  - Sound Focus Mode is set to Pinpoint, Area or Ambient.

Sound Field Creation

(Talk / Standard / Theater / Live / Sport / Direct Through)

Selects your favourite sound field setting.

Talk:

Provides the suitable sound field for talk scenes and makes it easier to hear voice.

Standard:

Provides the suitable sound field for all types of scenes.

Theater:

Provides the suitable sound field for cinema like an immersive cinema sound field.

Live:

Provides the suitable sound field for music live and makes powerful music live sound field.

Sport:

Provides the suitable sound field for sport and makes spacious stadium sound field.

Direct Through:

Provides the sound according to the content with the supported speakers.

– All front line array speakers output assigned L or R sound when playing back the 2ch content.

– All front line array speakers output assigned L, C or R sound, and the applied speakers output the sound when playing back the multi channel content.

– All speakers output the sound when playing back Dolby Atmos content.

- Not valid in the following conditions:

– Dolby Atmos content

– Mode is set to Auto AI or Music.

– Sound Focus Mode is set to Pinpoint, Area or Ambient.

Surround

(Dolby Surround / Cinema Surround Pro / Cinema Surround / Stadium Surround / Off)

Selects surround sound settings.

Dolby Surround:

Provides a surround sound just like the Dolby Atmos content for all input.

Cinema Surround Pro:

Provides a more progressive sound for watching a film by improving spatial effects.

Cinema Surround:

Provides a suitable sound for watching a film by improving spatial effects.

Stadium Surround:

Provides a dynamic sound for watching sports by improving spatial effects.

- This function is effective only for the sound from TV speakers.
- Not valid for Dolby Atmos content

Bass Boost

(On / Off)

Enhances the effect of bass sounds.

- This function is effective only for the sound from TV speakers.
- Not valid when Mode is set to Auto AI or Music

Sport Link

(On / Off)

Automatically sets the sound mode to Stadium when Viewing Mode is set to Sport.

Volume settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound and press OK to access.
3. Select one of the following items and press OK to access.

   Space Tune Setting / Speaker Selection / TV Speaker Setting / Auto Gain Control / Volume Correction / Clear Sound Adjustment / Dialogue Enhancement
4. Set the item and press OK to store.

Space Tune Setting

Adjusts the sound quality automatically according to the installation location or room condition.

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

Space Tune

(On / Off)

Enables the sound setting which has been adjusted by Space Tune Adjustment.

Space Tune Adjustment

Adjusts the sound setting with the Space Tune function.

Speaker Selection

(TV / Home Cinema)

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

TV:

TV speakers are active.

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 Volume Up / Down and MUTE.

- This function is available when the theatre speakers supporting VIERA Link function is connected to this TV.

TV Speaker Setting

(TV Speaker / Headphone / Off)

Selects the sound output to adjust the volume.

- Sound from TV speaker turns off when Headphone or Off is selected.

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.

Clear Sound Adjustment

(On / Off)

If the sound from TV speakers is unclear due to installation environment, On is recommended.

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

Dialogue Enhancement

(On / Off)

Enhances the intelligibility of dialogue and commentary.

- Not valid when Mode is set to Auto AI

Headphone terminal output setting

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound and press OK to access.
3. Select one of the following items and press OK to access.

   Headphone Terminal Output / Headphone Volume / Sub Woofer Adjustment
4. Set the item and press OK to store.

Headphone Terminal Output

(Headphone / Sub Woofer)

Selects the sound output from the headphone terminal.

Headphone:

The sound outputs for using headphones.

Sub Woofer:

The sound outputs for using sub woofer.

= Note =

- Normally set Headphone Terminal Output to Headphone.
- When Headphone Terminal Output is set to Sub Woofer, the headphones cannot be used properly because only the low-frequency sounds are output.
- The volume of the sub woofer can be also controlled when adjusting the volume of this unit with this TV's remote control.

Headphone Volume

Adjusts the volume of headphones.

Sub Woofer Adjustment

Adjusts the sound output of sub woofer.

Sub Woofer Volume:

Adjusts the volume of sub woofer.

- Confirm the actual sound volume from this TV and sub woofer and adjust the volume.

Cut Off Frequency:

Adjusts the cut-off frequency of sub woofer signal output.

- The frequency output to the sub woofer is less than the set cut-off frequency.
- The frequency can be adjusted from 100 Hz to 400 Hz.
- Confirm the actual sound volume from this TV and sub woofer and adjust the volume.

Reset to Defaults:

Resets Sub Woofer Adjustment to the default settings.

Voice Guidance Settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > Voice Guidance Settings and press OK to access.
3. Select one of the following items and press OK to access.

   Voice Guidance / Speed / Volume / User Level / Web Browser
4. Set the item and press OK to store.

Voice Guidance

(On / Off)

Set to On to enable voice guidance of the basic features (on-screen messages, etc.) for visually impaired users.

- Not valid in multi window mode

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 content in web browser function.

= Note =

- Voice guidance function may not correspond exactly.

Audio Description

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > Audio Description and press OK to access.
3. Select one of the following items and press OK to access.

   Preferred Audio Type / Volume
4. Set the item and press OK to store.

- For digital

Preferred Audio Type

(Audio Description / Standard)

Narration settings for visually impaired users

Set to Audio Description 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.
- Not valid in multi window mode

Volume

Adjusts the volume for Audio Description.

Advanced settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound and press OK to access.
3. Select one of the following items and press OK to access.

   NICAM / Audio Preference / AV Sync / SPDIF Selection / HDMI Audio Format / PCM Optical Level / eARC / SPDIF Delay / HDMI Input
4. Set the item and press OK to store.

NICAM

(On / Off)

Near Instantaneous Companded Audio Multiplex

Reproduces NICAM stereo sound.

- Set to Off if reception is poor. (FM monaural sound)
- For Analogue

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
- Ireland only

AV Sync

(On / Off)

Delays the video signal to adjusts the output timing difference between video and audio outputs.

- The output timing difference between video and audio outputs may not be adjusted correctly depending on the input signal and audio device used.
- Not valid in the following conditions:
  - Input Lag is set to Fast.
  - 1080p Pure Direct is set to On.
  - 4K Pure Direct is set to On.
  - 4K 120Hz Bypass Mode is set to On.

SPDIF Selection

(Auto / PCM / Dolby Audio)

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

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM.

  - Dolby Atmos may be output as Dolby Atmos Bitstream, Dolby Digital Plus, and Dolby AC-4 may be output as Dolby Digital Plus Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

  PCM:

  Digital output signal is fixed to PCM.

  Dolby Audio:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC and AAC are output as Dolby Digital Bitstream or Dolby Digital Plus Bitstream.

  - Dolby Atmos may be output as Dolby Atmos Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.
- eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) are functions of digital audio output using HDMI cable.

- For digital, video content

  Media Player > Playback > Audio output settings

  Network > Videos > Audio output settings

HDMI Audio Format

(Auto / PCM / Pass Through / Dolby Audio)

Selects the audio format for the HDMI input signal.

Auto:

Dolby Audio is output as Dolby Audio Bitstream. Other digital audio output signals are output as PCM. When the sound is delivered from theatre speakers, Dolby Audio is output with pass-through method.

PCM:

Digital audio signal is output as PCM.

Pass Through:

When the TV speakers are active, Dolby Audio is output as Dolby Audio Bitstream. Other digital audio output signals are output as PCM. When the sound is delivered from theatre speakers, the input signal is output as it is with pass-through method.

Dolby Audio:

When the TV speakers are active, Dolby Audio is output as Dolby Audio Bitstream. Other digital audio output signals are output as PCM. When the sound is delivered from theatre speakers, Dolby Audio is output with transcoding method.

PCM Optical Level

Adjusts the audio level of PCM output from DIGITAL AUDIO and HDMI2 (eARC / ARC function) terminals to equalise with that of the other audio types.

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eARC

(On / Off)

Set to On to enable the eARC (Enhanced Audio Return Channel) function when the equipment supporting eARC function is connected to this TV.

- The ARC (Audio Return Channel) function is enabled only when the connected equipment supports the ARC function.
- Use HDMI2 to connect the TV to an amplifier which has eARC / ARC function.
- Use an HDMI cable supporting eARC function or HEC (HDMI Ethernet Channel) function.

SPDIF Delay

Adjusts the delay time of the sound output from DIGITAL AUDIO and HDMI2 (eARC / ARC function) terminals if the sound does not synchronise the image.

- For digital
- Ireland only

HDMI 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

TV Guide

Freeview Play EPG (UK)

Using the Freeview Play EPG enables you to select a programme easily, view programme information, etc.

- For Freeview (UK only)
- A broadband network environment is required to fully use this function. Ensure the network connections and network settings are completed.

Network > Network connections

Network > Network settings

1. Select Freeview with TV.
2. Display TV Guide with GUIDE.
   (Example)

1 TV screen

2 Date and time

3 Programme

4 Channel position and name

- To watch the programme
  1) Select a programme and press OK to access.
  2) Select Watch now and press OK to watch.
     – To use Timer Programming, select Record.

       → Watching > TV Guide > Timer Programming
     – If a programme exists in both HD and SD broadcasts, Watch in HD can be selected.
- To display the schedule information

  (red)
- To jump to the currently selected channel

  (green)
- To access to the Catch-Up menu (if available)

  (yellow)
- To search programme, recommendation, etc. (if available)

  (blue)
- To view more details of the programme
  1) Select the programme.
  2) Press i to view.
     – Press again to return to TV Guide.
- To adjust the accessibility settings

  OPTION
- To exit TV Guide

  EXIT

= Note =

- In Satellite, the channel list will appear when pressing GUIDE.
- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you may not be able to use the Freeview Play EPG. You can update the software later manually.

  → Network > Network settings > Software Update
- 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.
- The features may vary depending on the broadcaster.

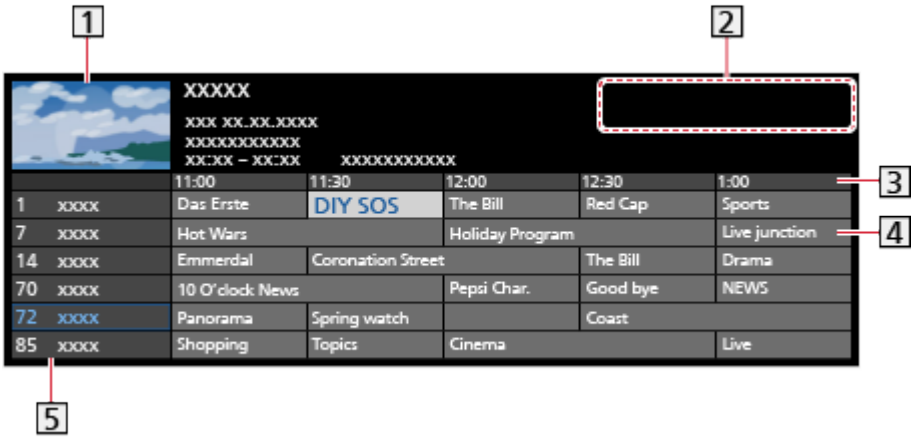
TV Guide

Some features are not available on all models.

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 broadcaster).

- Not valid in Analogue
- Ireland only

1. Select DVB with TV.
2. Display TV Guide with GUIDE.
   (Example)



1 TV screen (DVB)

2 Date / Search / Category

3 Time

4 Programme

5 Channel position and name

- To watch the programme
  1) Select the current programme and press OK to access.
     – The current programme is displayed on the top left of the screen.
  2) Select View and press OK to watch.
     – To use Timer Programming

Watching > TV Guide > Timer Programming

- To the previous day

  (red)

- To the next day

  (green)

- To search programme titles and view a list of the searched programmes (if available)
  1) Display the search list with (yellow).
  2) Select Search and press OK to access.
  3) Enter characters with Cursor buttons or Numeric buttons, and press OK to set.

  4) Press (green) to start searching.
     – All the programme titles including the word you set are listed.
     – Searching without any characters lists all programmes including current programmes.
- To view a channel list of the selected category
  1) Display the category list with (blue).
  2) Select the category and press OK to view.
     – To list favourite channels, set Favourites Editor.

→ Watching > Tuning and editing channels > Favourites Editor

- To view more details of the programme
  1) Select the programme.
  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.
- In Satellite, the channel list will appear when pressing GUIDE.

Timer Programming

This function allows you to select programmes that you want to record to the USB HDD.

1. Display TV Guide with GUIDE.
2. Select the forthcoming programme and press OK to access.
3. Select Record and press OK to set. (UK only)
   - You can also set a timer event pressing ●.
   - To check / change / cancel a timer event

     → Recording > Timer Programming > Editing Timer Programming
   - LED lights orange in Standby mode when Timer Programming is set.
   - To return to TV Guide

     BACK
   - If you select the current programme, a confirmation screen asking whether you want to watch or record the programme appears. Select Timer Programming and press OK to set USB HDD Rec. to record from the time you finish the timer event setting. (Ireland only)
   - is displayed on the TV Guide screen when Timer Programming is set. (Ireland only)
   - REC is displayed on the TV Guide screen when Timer Programming is set. (UK only)

= Note =

- Not valid in Analogue
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- 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 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 event will follow the change.

- UK only
- Guide is displayed on the timer event if the timer is set from the TV Guide. (Guide link programming)
- Not valid in Analogue

= 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.

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.

- Ireland only

1. Select DVB with TV.
   - DVB programmes may have digital text services (MHEG).
2. 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 approx. 5 seconds before pressing TEXT - this allows 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.

Viewing Teletext

1. Switch to teletext with TEXT.
   - Displays the index page (content varies depending on the broadcaster).
   - 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 Cursor buttons, Numeric buttons or (coloured buttons).

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

  EXIT

■ Reveal hidden data

1. Press MENU.
2. Reveal with (red).
   - Press again to hide.

■ 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 broadcaster (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 broadcaster.

- The features may vary depending on the broadcaster.
- The availability of teletext services for a programme is indicated by TEXT in the information banner. (Ireland only)

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Display Settings > Teletext and press OK to access.
3. Select FASTEXT / List and press OK to set.

■ 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

Teletext Character Set

Selects teletext language font.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Display Settings > Teletext Character Set and press OK to access.
3. Select the font and press OK to set.

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

Tuning and editing channels

Setting menu

Some features are not available on all models. Available menu items are displayed on your TV screen.

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

1. Select the mode with TV.

   Freeview (UK only) / DVB (Ireland only) / Analogue / Satellite

2. Display the menu with MENU, select Main Menu and press OK to access.
3. Select Setup > Tuning Menu and press OK to access.

   Freeview Tuning Menu / DVB Tuning Menu / Analogue Tuning Menu / Satellite Tuning Menu

   - The menu name varies depending on the TV mode.

4. Select one of the functions and press OK to access.

   Channel List Editor / Favourites Editor / Auto Setup / Channel Sorting by Region / Manual Tuning / Update Channel List / Auto Update Channel List / Signal Condition / Dual Tuner Mode / Add New Channels / Add TV Signal

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

Channel List Editor

Some features are not available on all models. Available menu items are displayed on your TV screen.

■ Skip unwanted Freeview / DVB / Analogue channels

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

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

   ☑ : Reveal

   ☐ : Hide (skip)

   - To reveal all channels (if available)

     (yellow)

■ Edit DVB (Ireland only) / 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 Cursor buttons or Numeric buttons, and press OK to set.

  3) Press BACK to store.

■ Edit Freeview Channels

- To delete the channel

  (blue)

- To delete all channels

  (yellow)

- To add channel

  1) Select a channel from Channels Found.

  2) Press OK to add it to all channels.

- To sort channel names in alphabetical order

  (red)

- To change the category of Channels Found

  (blue)

■ Create the channel list for Satellite

- Create your channel list of Satellite for viewing the content of all the found channels, and exclude the duplicated channels or reduce the number of channels. And then you can select your desired channels easily.

1. Select Channel List Editor and press OK to access.

   - To swap / move the channel position

     1) Press (green) to edit.

     2) Set the new position with Cursor buttons or Numeric buttons, and press (green) to store.

   - To delete the channel

     (blue)

   - To delete all channels

     (yellow)

   - To add channel

     1) Select a channel from Channels Found.

     2) Press OK to add it to all channels.

   - To sort channel names in alphabetical order

     (red)

- To add all channels to the list (if available)
  1) Press (yellow).
  2) Press (green) to add all (depending on the broadcaster).
- To add consecutive channels to the list at once (if available)
  1) Press (yellow).
  2) Make the channel block and press OK to add.
- To change the category of Channels Found

  (blue)

2. Press BACK and OK to store.
   – During the operation, remove USB devices other than the USB Flash Memory used for this function.

= Note =

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

Favourites Editor

The favourites lists are available for switching in the information banner and the TV Guide screen. (Ireland only)

→ Watching > Basic > Information banner

→ Watching > TV Guide > TV Guide

■ List favourite DVB channels

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

1. Select Favourites Editor and press OK to access.
2. Select a channel to list from all DVB channels.
   - appears when the channel is encrypted.
   - To display other favourites

     (green)
3. Press OK to add it to favourites list.
   - To add all channels to the list (if available)

     1) Press (yellow).

     2) Press (green) to add all.
4. Press BACK 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.
  2) Press (green).
  3) Select the new position with Cursor buttons or select the turn with Numeric buttons.

  4) Press (green) to store.
- To delete the channel
  1) Select the channel.
  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 Cursor buttons or Numeric buttons, and press OK to set.

  3) Press BACK to store.

= Note =

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

→ Watching > Tuning and editing channels > Channel List Editor

- The hidden channels cannot be displayed in the favourite list (Live TV).

Auto Setup

Some features are not available on all models. Available menu items are displayed on your TV screen.

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.
- Child Lock PIN number is required to retune locked channels.

  → Functions > Child Lock > PIN number

- If tuning has not been done completely, set Manual Tuning.

  → Watching > Tuning and editing channels > Manual Tuning

  – For Freeview, DVB, Analogue, Satellite

■ Freeview, DVB, Analogue

1. Select Auto Setup and press OK to access.
2. A 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.

■ Satellite

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

1. Select Auto Setup and press OK to access.
2. Select Search Mode / Scan Mode and press OK to access.
3. Set the item and press OK to store.
   - Scan Mode

     Quick:

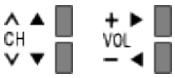
     Scans the suitable frequency for the selected satellite.

     Full:

     Scans the whole frequency range.
   - After settings, select Start scan and press OK to search.
4. A 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.

■ Auto Setup using the buttons on the TV

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



   - 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 Freeview 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 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

Some features are not available on all models. Available menu items are displayed on your TV screen.

- Normally use Auto Setup or Update Channel List to retune Freeview channels.
- All Freeview / DVB channels found are added to Channel List Editor.

■ Freeview (UK only)

1. Select Frequency.
2. Press OK to search.

- All channels found are added to Channel List.

■ DVB (Ireland only)

1. Select a channel and adjust frequency 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.

3. Set Manual Tuning.
4. Select Store 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.

■ 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 Satellite channels.
- Please consult the received satellite broadcasting companies for the setting.

Update Channel List

Some features are not available on all models. Available menu items are displayed on your TV screen.

By updating the Freeview 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 Channel List Editor, Favourites Editor, Child Lock, etc.
- Depending on the signal condition, the update may not work properly.
- To update the satellite channels, set Search Mode and Scan Mode before updating.
  1) Select Search Mode / Scan Mode and press OK to access.
  2) Set each item and press OK to store.
  3) After settings, select Start scan and press OK to search.

Signal Condition

Selects a channel and checks the signal condition with indicators.

- A good Signal Strength is not an indication of suitable signal reception.
- Vertical lines show the maximum signal value of the selected channel.
- To change the channel

- Not valid in Analogue

Add New Channels

You can add any new channels found automatically to the 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 a search mode and press OK to start Add New Channels.

- New channels can only be added to the existing channel list from the same satellite.

Other settings

Auto Update Channel List

(On / Off)

Selects whether or not broadcast changes are automatically updated in your channel list.

- For digital

Add TV Signal

Adds the TV mode.

- Allows you to add any TV mode which was skipped during initial Auto Setup.

Selectable satellites

Only for the model supporting the satellite reception

■ Selectable satellites and dish alignment to tune DVB-S channels

To ensure your satellite dish is correctly installed, please consult your local dealer.

Also please consult the received satellite broadcasting companies for details.

- Intelsat at 85.2° East
- ABS 1 at 75° East
- Express at 53° East
- Intelsat at 45° East
- Turksat at 42° East
- Hellas at 39° East
- Eutelsat at 36° East
- Eutelsat at 33° East
- Astra at 28.2° East
- Badr at 26° East
- Eutelsat at 25.5° East
- Astra at 23.5° East
- Eutelsat at 21.5° East
- Astra at 19.2° East
- Eutelsat at 16° East
- Hot Bird at 13° East
- Eutelsat at 10° East
- Eutelsat at 9° East
- Eutelsat at 7° East
- Astra at 4.8° East
- Thor at 0.8° West / Intelsat at 1° West
- Amos at 4° West
- Eutelsat at 5° West
- Eutelsat at 7° West
- Eutelsat at 8° West
- Eutelsat at 12.5° West
- Telstar at 15° West
- SES at 22° West
- Intelsat at 24.5° West
- Hispasat at 30° West

Recording

USB HDD setup

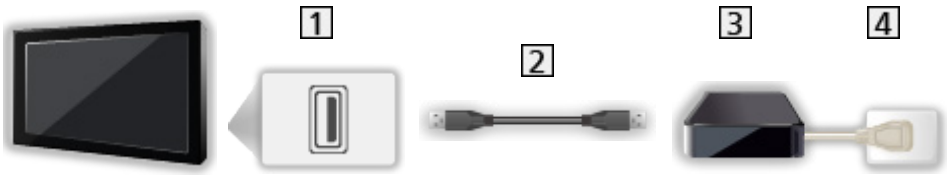
Preparations

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 1 port with the USB cable.
- Be sure to connect the USB HDD to the mains socket.
- 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 for connection.



1 USB port

2 USB cable

3 USB HDD

4 Mains socket

= 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.)
- 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 content 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, radio broadcasting are not recorded, and also the recording function does 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 TV programmes of the USB HDD.
- The recorded content may not be played back properly depending on the progress of recording.
- For details 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 are 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, select Main Menu and press OK to access.
2. Select Setup > USB Device Setup and press OK to access.
3. Select the USB HDD for recording 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 and press OK to proceed.
5. When a confirmation screen of USB HDD name is displayed, select Yes 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 Cursor buttons or Numeric buttons, and press OK to set.

     2) Press BACK to store.
6. When a confirmation screen to enable USB HDD for recording is displayed, select Yes 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 Tuning Menu to record 2 programmes simultaneously in Satellite.

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, select Main Menu and press OK to access.
2. Select Setup > Recording Setup > One Touch Recording and press OK to access.
3. Select the maximum recording time 30 / 60 / 90 / 120 / 180 (minutes) and press OK to set.

■ To start One Touch Recording

Press ● to start.

■ To stop recording in progress

Press ■ to stop.

■ To play back or delete the recorded content

Recorded TV programmes can be played back on Media Player.

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select USB HDD for recording and press OK to access.

→ Media Player > Recorded TV mode

- Even if One Touch Recording is in progress, you can play back all the content. (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, select Main Menu and press OK to access.
2. Select Setup > Recording Setup > Rewind LIVE TV and press OK to access.
3. Select Auto to start Rewind LIVE TV.

- When you select Auto, recording will start automatically.
- This recording may 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 / Search forward

  ⏸ : Pause / Resume

■ To stop Rewind LIVE TV

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Recording Setup > Rewind LIVE TV and press OK to access.
3. Select Off to stop Rewind LIVE TV.

- If you stop Rewind LIVE TV, the recorded content for Rewind LIVE TV will be deleted.
- Rewind LIVE TV is stopped and the recorded content is 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 starts automatically in a condition that makes the recording available.)
  - Other channels selected
  - Locked channel selected
  - Invalid channel selected
  - No TV signal
  - External input selected
  - When the full-screen application (TV Guide, Media Player, eHELP, etc.) is launched
  - When the TV enters Standby or is turned off

Timer Programming

Setting Timer Programming

Some features are not available on all models.

This function allows you to select programmes that you want to record to the USB HDD.

- Not valid in Analogue

1. Select the mode with TV.

   Freeview / DVB / Satellite

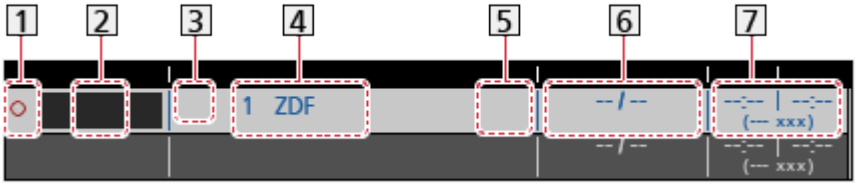
2. Display the menu with MENU, select Main Menu and press OK to access.
3. Select Timer > Timer Programming and press OK to access.
4. Press OK to start making the settings.

   USB HDD Rec.:

   Records the programme to the USB HDD.

5. Select and set the item (channel, date, start time, end time).
   - 4 and 7 can also be entered with Numeric buttons.

(Example)



1 !: Overlapped timer events

2 Function (USB HDD Rec.)

3 TV mode

- For UK
  - D : DVB
  - S : Satellite
- For Ireland
  - D: DVB
  - S: Satellite

– You cannot change the mode within the menu.

4 Channel position, channel name, etc.

5 Guide : Signal Supported Recording (if available)

Watching > TV Guide > Timer Programming

6 Date

- Daily Sun-Sat: Sunday to Saturday
- Daily Mon-Sat: Monday to Saturday
- Daily Mon-Fri: Monday to Friday
- Weekly Sun / Mon / Tue / Wed / Thu / Fri / Sat: Same time on the same day every week

7 Start time / End time / Duration (automatic display)

6. Store with OK.

■ Guide link programming

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

→ 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 event will follow the change.

Editing Timer Programming

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Timer > Timer Programming and press OK to access.
3. Select the event.

- To change a timer event

  OK

  – Correct as necessary.

  → Recording > Timer Programming > Setting Timer Programming

- To delete a timer event

  1) Press (red).

  2) Press OK to delete.

■ To stop recording

1. Press ■.
2. Select the programme and press OK to access (when 2 recordings are in progress).
3. Select Yes and press OK to stop.

■ To play back or delete the recorded content

Recorded TV programmes can be played back on Media Player.

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select USB HDD for recording and press OK to access.

   → Media Player > Recorded TV mode

- The recorded content may not be played back properly depending on the progress of recording.

Note

- TV Guide may also be used to set timer 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.
- Depending on the progress of recording, analogue channel may not be selected.
- Recording an encrypted (copy-protected) programme may not be possible.
- When the start time comes, the channel may be switched automatically and the video and audio signals may be output. 2 minutes before the start 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 lights orange in Standby mode when Timer Programming is set.
- "!" identifies that three or more timer events are overlapped. 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 start time.
- For details 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 6 TB.
- Connect the USB HDD to the mains socket 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.

= 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.

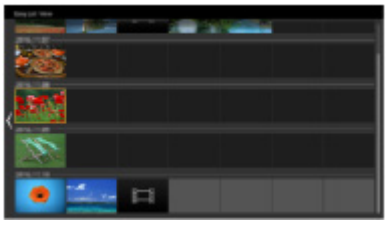
Media Player

Using Media Player

Information

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

(Example)



Easy List View:

Still pictures / moving pictures recorded with digital camera or digital video camera are played back.

Mix Folder View:

All files grouped by folder are displayed.

Recorded TV mode:

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

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

  → Functions > VIERA Link “HDAVI Control™”

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

■ To insert or remove the USB Flash Memory

Ensure alignment is straight and complete when inserting or removing.

- To remove the USB Flash Memory safely from the TV, perform Safely remove USB in USB Device Setup.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Setup > USB Device Setup and press OK to access.
  3) Select the device and press (yellow) to set.

= Note =

- To connect the USB HDD

  → Recording > USB HDD setup
- Check the terminal type and devices are correct for connection.
- For details of the devices

  → Media Player > Connected device
- For details of supported file formats

  → Media Player > Supported format

Selecting device / mode

1. Insert the USB Flash Memory to the TV.

   → Media Player > Using Media Player > Information

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

     → Recording > USB HDD setup

2. Display Home with HOME.
3. Select Devices and press OK to access.
4. Select the device (USB Flash Memory / USB HDD) and press OK to access.
5. Select Easy List View / Mix Folder View / Recorded TV and press OK to access.

   Easy List View

   → Media Player > Easy List View

   Mix Folder View

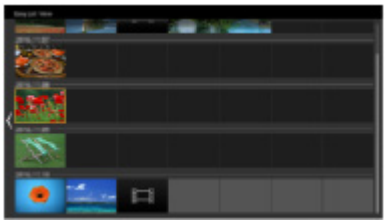
   → Media Player > Mix Folder View

   Recorded TV

   → Media Player > Recorded TV mode

6. The thumbnail view is displayed.

   (Example)

- To display / hide information of the highlighted content

  i

= Note =

- Recorded TV is available for content 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

Easy List View

Selecting file

Still pictures / moving pictures recorded with digital camera or digital video camera are played back.

Select the file in the thumbnail view and press OK to start playback.

- If a file or folder is edited or renamed by digital camera, digital video camera, PC, etc., the thumbnail may not be displayed properly.

: Error display

- To sort by month
  1) Display the option menu with OPTION.
  2) Select Calendar and press OK to access.
- 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.
  1) Display the option menu with OPTION.
  2) Select and press OK to access.
  3) Select Video Setup > Video Preview and press OK to access.
  4) Select On / Off and press OK to set.
     – 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.
- For details of supported file formats

  → Media Player > Supported format
- To play back the file

  → Media Player > Playback > Playback

■ Settings

1. Display the option menu with OPTION.
2. Select 🔧 and press OK to access.
3. Select one of the following items and press OK to access.

   Play Select / Repeat / Shuffle
4. Set the item and press OK to store.

Play Select

Settings for playback file selection

Repeat

(Folder / File Repeat / Off)

Repeat the playback.

Folder:

Repeat the playback within the selected folder.

File Repeat:

Repeat the playback of the selected one file.

Shuffle

(On / Off)

Files are played back at random.

Filtering files

You can filter the files as the content type. (Photo / Video)

1. Display the option menu with OPTION.
2. Select Filter and press OK to access.
3. Select Photo / Video and press OK to set.
4. Select OK and press OK to change.

- To select the music file

Media Player > Mix Folder View > Filtering files

Mix Folder View

Selecting file

Displays the thumbnail of all files which are grouped by folder.

Select the folder / file and press OK to start playback.

: Error display

- 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.
  1) Display the option menu with OPTION.
  2) Select and press OK to access.
  3) Select Video Setup > Video Preview and press OK to access.
  4) Select On / Off and press OK to set.
     – 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.
- For details of supported file formats

  → Media Player > Supported format
- To play back the file

  → Media Player > Playback > Playback

■ Settings

1. Display the option menu with OPTION.
2. Select 🔧 and press OK to access.
3. Select one of the following items and press OK to access.

   Play Select / Repeat / Shuffle
4. Set the item and press OK to store.

Play Select

Settings for playback file selection

Repeat

(Folder / File Repeat / Off)

Repeat the playback.

Folder:

Repeat the playback within the selected folder.

File Repeat:

Repeat the playback of the selected one file.

Shuffle

(On / Off)

Files are played back at random.

Filtering files

You can filter the files as the content type. (Photo / Video / Music)

1. Display the option menu with OPTION.
2. Select Filter and press OK to access.
3. Select Photo / Video / Music and press OK to set.
4. Select OK and press OK to change.

Sorting files

You can sort the files in alphabetical / date order.

1. Display the option menu with OPTION.
2. Select Sort and press OK to access.
3. Select Alphabet(A...Z) / Alphabet(Z...A) / Date(1...9) / Date(9...1) and press OK to change.

Playback

Playback

■ Photo playback

◁ :

To the previous photo

▷ :

To the next photo

▽ :

Stop

OK :

Switch the playback mode (Single view / Slideshow).

(blue) :

Rotate

i :

Display / hide the operation guide.

BACK :

Return to thumbnail.

■ Video / Music 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.

(red) :

To the previous title / scene / track

(green) :

To the next title / scene / track

i :

Display / hide the operation guide.

BACK :

Return to thumbnail.

= Note =

- To set Repeat / Shuffle for playback

→ Media Player > Easy List View > Selecting file

→ Media Player > Mix Folder View > Selecting file

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 and press OK to access.

   Aspect / Interval / Back Ground Music
4. Set the item and press OK to store.

Aspect

(Original / Zoom)

Selects enlarged or normal viewing.

- Depending on the photo size, the photo may not be fully enlarged to fill the screen (e.g. portrait style picture).

Interval

(Long / Normal / Short)

Selects slideshow interval.

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 are played back.

Auto:

Music files stored in the current device are played back.

- If there is no available music data, no sound is played back.

User:

Music files in the device registered by yourself are played back.

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

- To register music

  1) Select the music file 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 and press OK to set.

     File:

     The selected music file is registered.

     Folder:

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

= Note =

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

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 and press OK to access.

   Multi Audio / Dual Mono Audio / Subtitle Settings

   - Menu items and selectable options vary depending on the content.
4. Set the item and press OK to store.

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.
- Dual mono of Dolby Audio (Dolby Digital, Dolby Digital Plus) is not supported.

Subtitle Settings

Sets the subtitle setting.

- This function is available during playback.

  Subtitle:

  Displays / hides subtitles (if available).

  Subtitle Text:

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

  Subtitle Text Size:

  Selects the font size of subtitles.

  Subtitle Text Colour:

  Selects the colour of subtitles.

  Subtitle Text Position:

  Adjusts the position of subtitles on the screen.

  Subtitle Text Delay:

  Adjusts the delay time for the subtitles.

Audio output settings

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

- To confirm or change the current sound status

  → Media Player > Playback > Video Setup

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > SPDIF Selection and press OK to access.
3. Select Auto / PCM / Dolby Audio and press OK to set.

SPDIF Selection

(Auto / PCM / Dolby Audio)

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

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM.

  – Dolby Atmos may be output as Dolby Atmos Bitstream, Dolby Digital Plus, and Dolby AC-4 may be output as Dolby Digital Plus Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

  PCM:

  Digital output signal is fixed to PCM.

  Dolby Audio:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC and AAC are output as Dolby Digital Bitstream or Dolby Digital Plus Bitstream.

  – Dolby Atmos may be output as Dolby Atmos Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

- eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) are functions of digital audio output using HDMI cable.

Recorded TV mode

Selecting content

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

→ Recording > USB HDD setup

1. Content 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.)
   - Content list is displayed as All or Not Viewed.

     All:

     All the recorded TV programmes are listed.

     Not Viewed:

     Content 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.

     : Currently recording (You can play back this recording content.)

     : Group of content

     : Programme with parental rating
2. Select the content and press OK to start playback.
   - If you have stopped the last playback halfway, a confirmation screen may be 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 details of supported file formats

→ Media Player > Supported format > 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 are 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

  → Watching > For best picture > Aspect

- To display the subtitle (if available)

  STTL

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

  Watching > Basic > AV Options

- To return to list

  BACK

= Note =

- The recorded content may not be played back properly depending on the progress of recording.

Grouping content

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

   Create Group:

   Create a group of content. Select and tick all the desired content, 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 content. To exclude specific content from the group, tick it and then select Exclude from Group. (To exclude some of the content at once, tick all the desired content.)

   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 some of the content at once, tick all the desired content.)

Deleting content

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

Chapter List

You can start playback from the chapter list you select.

1. Display the chapter list with (yellow).
2. Select the chapter 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 (eARC / ARC function) terminal.

- To confirm or change the current sound status

  → Media Player > Playback > Video Setup

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > SPDIF Selection and press OK to access.
3. Select Auto / PCM / Dolby Audio and press OK to set.

SPDIF Selection

(Auto / PCM / Dolby Audio)

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

- SPDIF is a standard audio transfer file format.

  Auto:

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  – Dolby Atmos may be output as Dolby Atmos Bitstream, Dolby Digital Plus, and Dolby AC-4 may be output as Dolby Digital Plus Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

  PCM:

  Digital output signal is fixed to PCM.

  Dolby Audio:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC and AAC are output as Dolby Digital Bitstream or Dolby Digital Plus Bitstream.

  – Dolby Atmos may be output as Dolby Atmos Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

- eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) are functions of digital audio output using HDMI cable.

Connected device

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.

USB devices

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

■ USB Flash Memory

USB Flash Memory format:

FAT16, FAT32 or exFAT

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

■ USB HDD

- The capacity of USB HDD that works with this TV is from 160 GB to 6 TB.
- Connect the USB HDD to the mains socket 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.

Supported format

Photo format

■ Supported Photo formats

● HLG Photo (.hsp)

- CTA-2072 standard
- Still pictures recorded with HLG standard are supported.

● JPEG (.jpg, .jpeg)

Sub-sampling:

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

Image resolution (pixel):

8 × 8 to 30 719 × 17 279

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

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Some files may not be played back correctly depending on the resolution, etc.
- Do not use multi-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

- AVI (.avi)

  Video codec:

  H.264, MPEG1, MPEG2, MPEG4, VC-1, WMV9

  Audio codec:

  AAC, ADPCM, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, LPCM, MP3, WMA, WMA Pro

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

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2, MPEG4

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC, MP3

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

- MKV (.mkv)

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2, MPEG4

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, MP3, Vorbis

- ASF (.asf, .wmv)

  Video codec:

  MPEG4, VC-1, WMV9

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, LPCM, MP3, WMA, WMA Pro

  - Copy-protected files cannot be played back.

- FLV (.flv)

  Video codec:

  H.264

  Audio codec:

  AAC, MP3

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

  Video codec:

  H.264, MPEG4

  Audio codec:

  AAC, HE-AAC

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

  Video codec:

  H.264, MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, LPCM, MP3

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

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2, VC-1

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC, MP3

- WebM (.webm)

  Video codec:

  VP9

  Audio codec:

  Vorbis

■ 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.
- Some files may not be played back correctly depending on the resolution, frame rate condition, etc.
- Some subtitles or chapter functions may not be available.
- Do not use multi-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 formats are different in Media Player and media server.

Music format

■ Supported Music formats

- MP3 (.mp3)

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

- FLAC (.flac)

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

- LPCM (.wav)

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-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.

Network

Internet content

Information

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

(Example)

- A broadband network environment is required to use this function. Ensure the network connections and network settings are completed.

Network > Network connections

Network > Network settings

■ Browser

You can browse websites.

- Some internet services may not be available or may not be displayed properly depending on the website.

Selecting internet content

1. Display Home with HOME.
2. Select Apps and press OK to access.
   - For details of Apps

     Home > Apps
   - Depending on the usage conditions, it may take a while to read all the data.
3. Select the desired item and press OK to access.

   (Example)

   - To exit Apps

     EXIT
   - You can connect a keyboard for character input in the applications. You can also use the keyboard for TV operation.

     Functions > Bluetooth devices

     Functions > Keyboard

Note

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

  → Network > Network connections

  → Network > Network settings

- The design and specifications are 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 may not be able to use Apps. You can update the software later manually.

  → Network > Network settings > Software Update

- The services through Apps are operated by their service providers and such service may be discontinued either temporarily or permanently without notice. Panasonic will make no warranty for the content or the continuity of the services.
- Content may not be available depending on the country you select.
- Content may be presented in specific languages.
- Depending on the connection environment, the internet connection may be slow or may not be successful.

Home network

In-House streaming

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

  → Network > Network connections

  → Network > Network settings

= Note =

- The delivering content may be obtained by a third party due to an unauthorised access. If the TV connects to the network environment such as office, hotel, room without router, etc., make sure to check the network connection.

■ Playback of sharing content stored in the media server

Store photo, video or music content into the media server connected to your home network. And then you can enjoy the content on this TV.

(Example)

- For details of watching and operating content on this TV

  → Network > Home network > Preparations

- For details of supported file formats

  → Network > Supported format

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

You can enjoy content stored in the media server by controlling with the DMC network equipment connected to your home network.

- To use this function with your smartphone or PC, set TV Remote App Settings of this TV.

  → Network > Network settings > TV Remote App Settings

  And you need to install the application for controlling this TV on your smartphone.

  → Support > FAQs > Detailed information

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

■ Sharing the content of this TV with another piece of network equipment

You can enjoy the content of this TV with another network equipment connected to your home network.

Available content:

- Photo, video or music content of this TV
- Current digital TV programme
- TV programmes recorded on USB HDDs with this TV

Available network equipment:

- TV supporting home network function
- Smartphone, etc.

- To use this function with your smartphone, you need to install the application for controlling this TV on your smartphone.

  → Support > FAQs > Detailed information

  For the operations, refer to the support information of the application.
- To use this function with another TV, set Network Link Settings of this TV.

  → Network > Network settings > Network Link Settings
- 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.
- Display the TV full-screen for sharing the TV programme with another piece of network equipment.
- Only 1 piece of other equipment can share the content of this TV.

= Note =

- This function is not available when the TV is turned off with Mains Power On / Off switch.
- This function may not be available in the following condition of this TV:
  - While the recording is in progress
- Selecting the channel or TV mode on your smartphone may not be available while the recording is in progress.

Preparations

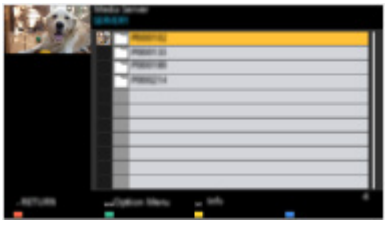
To use in-house streaming features, ensure the preparations of the media server, network connections and network settings are completed.

Network > Home network > In-House streaming

Network > Network connections

Network > Network settings

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select the media server and press OK to access.
   - To display / hide information of the highlighted media server
     1) Display the option menu with OPTION.
     2) Select Show Info. and press OK to access.
4. Select the file 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

Internet connection

A broadband network environment is required to use internet services.

- 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, content may not be played back properly.

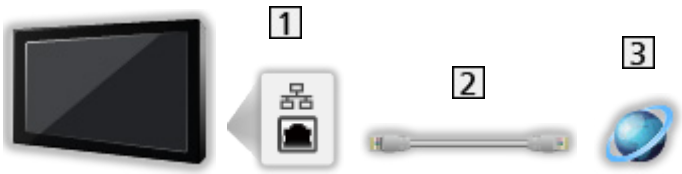
■ Wireless connection

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

2 Access point

3 Internet environment

■ Wired connection



1 ETHERNET terminal

2 LAN cable (Shielded)

- Use Shielded Twist Pair (STP) LAN cable.

3 Internet environment

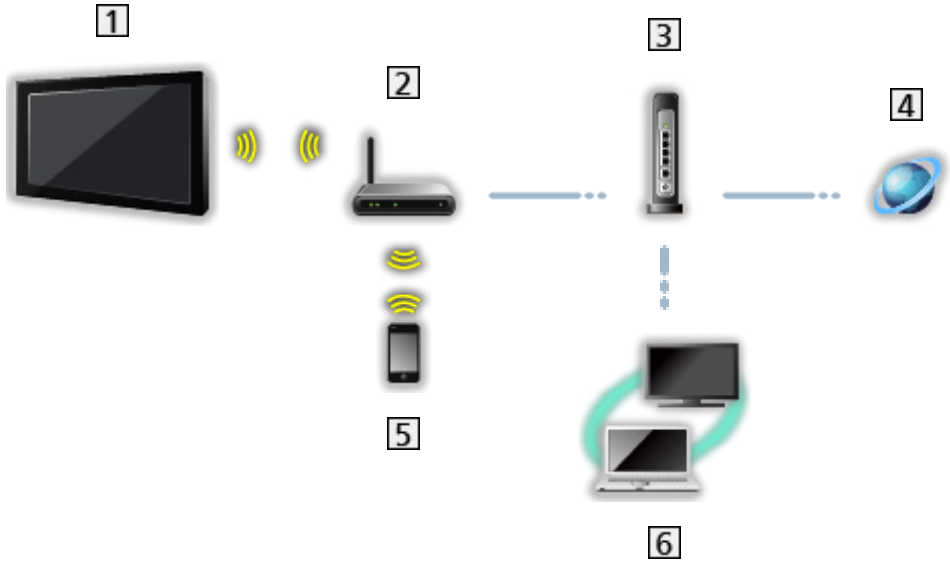
Home network connection

To use in-house streaming features, you need a home network environment and you can operate the features without a broadband network environment.

- A broadband network environment is required to use internet services.

Network > Network connections > Internet connection

■ Wireless connection (For home network and internet service)



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

2 Access point

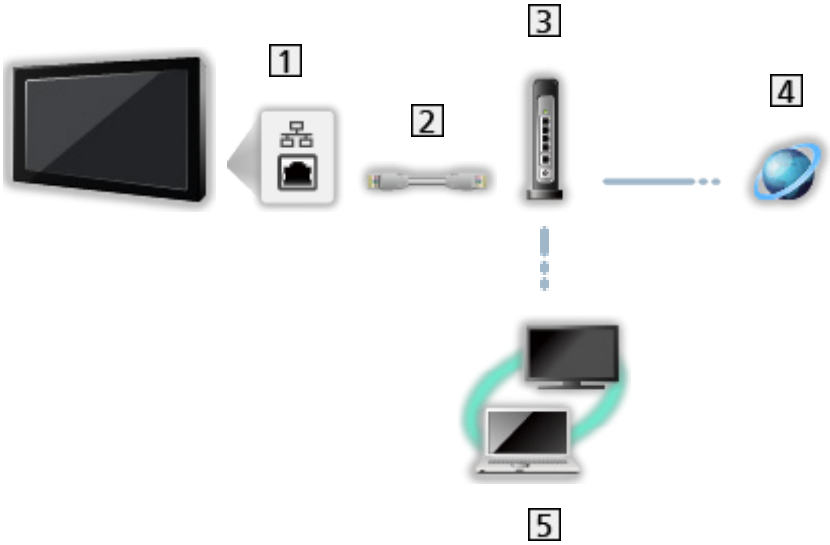
3 Hub / Router

4 Internet environment

5 Smartphone, etc.

6 Media server (PC, etc.)

■ Wired connection (For home network and internet service)



1 ETHERNET terminal

2 LAN cable (Shielded)

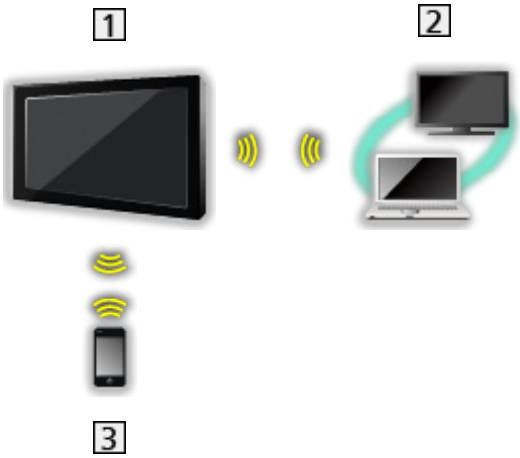
- Use Shielded Twist Pair (STP) LAN cable.

3 Hub / Router

4 Internet environment

5 Media server (PC, etc.)

■ Wireless connection (For home network)



1 TV

- To use the TV as a wireless access point

→ Network > Network settings > Custom - Wireless Access Point

2 Media server (PC, etc.)

3 Smartphone, etc.

Note

- For secure connection, it is recommended to use a device supporting WPA2 / WPA3 as wireless LAN type. The encryption type depends on the connected device.
- 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 with Mains Power On / Off switch, then turn it on again when changing or making the network connection again.
- Depending on the network condition, the content may not be played back properly.
- In case the password of the registered device or user is known by a third party, there is a risk of unauthorised entries. Keep your password safe. Panasonic will make no warranty for the unauthorised entries.
- To prevent a risk of interception, unauthorised entries and hacking, set up the proper security settings (encryption setting).

Network settings

Network Connection

Ensure the connections are completed before starting network setup.

Network > Network connections

■ Quick setup - Wireless

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Network Connection 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 and press OK to access.
   - When the LAN cable is connected, wired setup will be done automatically.
4. Select your desired access point 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 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 fails, 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 and press OK to set.
   - You can set characters using Numeric buttons.

   - Press (green) to store.
6. Automatically setup is done and Network Status is displayed.

   Network > Network settings > Network Status
7. Select Exit and press OK to set.

- To set manually

  Network > Network settings > Custom - Wireless

■ Quick setup - Wired

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Network Connection and press OK to access.
3. Select Quick setup and press OK to access.
4. Automatically setup is done and Network Status is displayed.

   → Network > Network settings > Network Status

5. Select Exit and press OK to set.

- To set manually

  → Network > Network settings > Custom - Wired

= Note =

- To deactivate the wireless network, perform the following procedure to turn off the wireless network.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Network > Network Connection > Custom and set to Wired.
  3) Select Network > Mirroring Settings > Easy Mirroring and set to Off.

Custom - Wireless

Ensure the connections are completed before starting network setup.

Network > Network connections

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Network Connection > Custom > Wireless 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 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 fails, 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 settings and encryption key manually.

     3) Follow the on-screen instructions and set manually.
   - To search access points again

     (blue)
   - It is recommended to select the encrypted access point.
4. Enter the encryption key of the access point and press OK to set.
   - You can set characters using Numeric buttons.

   - Press (green) to store.

5. IP/DNS Settings is displayed.

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 setting.

  Proxy:

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

  1) Select Proxy and press OK to access.
  2) Enter the address with Cursor buttons or Numeric buttons, and press OK to set.

  3) Press (green) to store.

  Proxy Port:

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

  1) Select Proxy Port.
  2) Enter the number with Numeric buttons.

  3) Press BACK to store.

---

6. Select Network Status and press OK to access.

   Network > Network settings > Network Status

7. Select Exit and press OK to set.

Custom - Wired

Ensure the connections are completed before starting network setup.

Network > Network connections

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Network Connection > Custom > Wired and press OK to access.
3. IP/DNS Settings is displayed.

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 setting.

Proxy:

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

1) Select Proxy and press OK to access.
2) Enter the address with Cursor buttons or Numeric buttons, and press OK to set.

3) Press (green) to store.

Proxy Port:

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

1) Select Proxy Port.
2) Enter the number with Numeric buttons.

3) Press BACK to store.

---

4. Select Network Status and press OK to access.

   → Network > Network settings > Network Status

5. Select Exit and press OK to set.

= Note =

- To deactivate the wireless network, perform the following procedure to turn off the wireless network.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Network > Network Connection > Custom and set to Wired.
  3) Select Network > Mirroring Settings > Easy Mirroring and set to Off.

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, select Main Menu and press OK to access.
2. Select Network > Network Connection > Custom > Wireless Access Point and press OK to access.
3. Select Connect to device and press OK to access.
   - To set manually, select Change settings (see below).
4. Select and set Push button / PIN code and press OK to access.

   Push button:

   Set up the equipment for Push button. For details, read the manual of the equipment.

   PIN code:

   Enter the PIN code of the equipment.

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

■ Change settings

You can set up Network Name(SSID), Password, Wireless type and Channel setting method manually.

Follow the on-screen instructions and set manually.

- Set Reset settings to reset the items for 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 varies according to communication environment or the numbers of connected equipment.
- To confirm the current network settings

  → Network > Network settings > Network Status

Network Status

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

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Network Status and press OK to access.
3. Automatically testing is done and Network Status 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 settings, etc.).

   Reset settings:

   Resets the network settings and initialises to the default settings.

- For information about the network connection, select Help.

TV Name

Sets your favourite name for this TV.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > TV Name and press OK to access.
3. Enter characters and press OK to set.

- This name is used as the name of this TV on the screen of the other network equipment.
- When you use two or more TVs in your network environment, set the names of the TVs for each.

TV Remote App Settings

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

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > TV Remote App Settings and press OK to access.
3. Select one of the following items and press OK to access.

   TV Remote / Powered On by Apps / Networked Standby / Home Streaming / Device to upload contents / Delete All Pairings
4. Set the item and press OK to store.

TV Remote

(On / Off)

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

Powered On by Apps

(On / Off)

Enables turning the TV on from the network equipment (smartphone, etc.).

- Depending on the network condition, you may have to turn the TV on with Standby On / Off switch of the TV's remote control.
- Changing the default configuration may result in higher energy consumption of the product.
- LED lights orange in Standby mode when Powered On by Apps is set to On.

Networked Standby

(On / Off)

Enables turning the TV on via the LAN cable or wireless LAN using a wake-up message sent from the network equipment in the home network.

- Changing the default configuration may result in higher energy consumption of the product.

Home Streaming

(Always / Only when powered on)

Enables sharing the TV programme and content of this TV with the network equipment (smartphone, etc.) in the home network.

- Changing the default configuration may result in higher energy consumption of the product.
- LED lights orange in Standby mode when Home Streaming is set to Always.

Device to upload contents

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

Delete All Pairings

Delete the pairing information for all paired devices.

= Note =

- This function is not available when the TV is turned off with Mains Power On / Off switch.
- You need to install the application for controlling this TV on your smartphone.

  → Support > FAQs > Detailed information

  For the operations, refer to the support information of the application.
- Depending on the network condition, this function may not be available.
- 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, select Main Menu and press OK to access.
2. Select Network > Network Link Settings and press OK to access.
3. Select one of the following items and press OK to access.

   Home Network Server / Registration Type / Remote Device List
4. Set the item and press OK to store.

Home Network Server

(On / Off)

Enables sharing the TV programme and content of this TV with the network equipment (TV, etc.).

- To use this function with another TV, select the name of this TV from the media server list of another TV, and then select the content to share. Also read the manual of another TV.
- To use this function with your smartphone, you need to install the application for controlling this TV on your smartphone.

  → Support > FAQs > Detailed information

  For the operations, refer to the support information of the application.
- Changing the default configuration may result in higher energy consumption of the product.
- LED lights orange in Standby mode when Home Network Server is set to On.

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 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.

Smart Speaker Settings

Controls this TV such as selecting a channel, changing volume, etc. with the smart speaker function.

- Ensure the network connections and network settings are completed.

→ Network > Network connections

→ Network > Network settings

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Smart Speaker Settings and press OK to access.
3. Follow the on-screen instructions.

- For the operations, refer to the support information.

→ Support > FAQs > Detailed information

Mirroring Settings

Settings for the mirroring function

Functions > Mirroring > Mirroring Settings

Control4 Settings

Settings for the Control4 function

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Control4 Settings and press OK to access.
3. Select Control4 Discovery / Send Identify and press OK to access.
4. Set the item and press OK to store.

Control4 Discovery

(On / Off)

Enables Control4 mode.

Send Identify

Sends identifying message to Control4 controller.

- This function is available when Control4 Discovery is set to On.

= Note =

- For details of the settings and operations, consult your local Control4 dealer.

VOD Content Refresh

Selects whether to update the VOD content to the latest even when the TV is in Standby mode.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > VOD Content Refresh and press OK to access.
3. Select On / Off and press OK to access.

- Changing the default configuration may result in higher energy consumption of the product.
- LED lights orange while updating in Standby mode when VOD Content Refresh is set to On.

Software Update

Updates the TV's software if any updates are available.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Software Update and press OK to access.
3. Follow the on-screen instructions.

- A broadband network environment is required to use this function.

New Software Message

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

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

IPv6

Enables the IPv6 function for the network connections.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > IPv6 and press OK to access.
3. Select On / Off and press OK to set.

= Note =

- The IPv6 function may not be available for all combinations of an application and network. If an application does not work properly, set IPv6 to Off and turn the TV off, then turn it on again.

Terms of Service and Settings

Displays the terms of service and settings.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Terms of Service and Settings and press OK to access.
3. Follow the on-screen instructions.

Samba Interactive TV Settings

Settings for the Samba interactive TV services

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Samba Interactive TV Settings > Settings and press OK to access.
3. Follow the on-screen instructions.

- A broadband network environment is required to use this function.

Photos

Selecting file

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

Network > Home network > In-House streaming

Network > Network connections

Network > Network settings

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select the media server and press OK to access.
   - To display / hide information of the highlighted media server
     1) Display the option menu with OPTION.
     2) Select Show Info. and press OK to access.
4. Select the file 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.

Viewing photo

■ Playback

- 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

Using Slideshow

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

■ Slideshow Settings

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

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

   Interval / Repeat / Back Ground Music

4. Set the item and press OK to store.

Interval

(Long / Normal / Short)

Selects slideshow interval.

Repeat

(On / Off)

Repeat the slideshow.

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.

Network > Home network > In-House streaming

Network > Network connections

Network > Network settings

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select the media server and press OK to access.
   - To display / hide information of the highlighted media server
     1) Display the option menu with OPTION.
     2) Select Show Info. and press OK to access.
4. Select the file 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.

■ Playback

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

- To operate playback

  △ : Manual skip (if available)

  – Press to skip forward approx. 30 seconds.

  ◁ : Rewind

  ▷ : Fast forward

  ▽ : Stop

  OK : Pause (displays the time seek bar / slow playback) / 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 content

  (red)

- To the next content

  (green)

- To change aspect

  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Picture > Screen Settings > Aspect and press OK to access.
  3) Select the mode and press OK to set.

     Aspect1:

     Displays the content in original size.

     Aspect2:

     Displays the content enlarged without distortion.

  – Aspect cannot be changed depending on the content.

- To return to list

  BACK

Video Setup

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

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

   Video Preview / Multi Audio / Monaural Audio / Dual Mono Audio / Repeat / Subtitle Settings

   - Menu items and selectable options vary depending on the content.
4. Set the item 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.
- Dual mono of Dolby Audio (Dolby Digital, Dolby Digital Plus) is not supported.

Repeat

(On / Off)

Repeat the playback within the selected file.

Subtitle Settings

Sets the subtitle setting.

- This function is available during playback.

  Subtitle:

  Display / hide subtitles (if available).

  Subtitle Text:

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

  Subtitle Text Size:

  Selects the font size of subtitles.

  Subtitle Text Colour:

  Selects the colour of subtitles.

  Subtitle Text Position:

  Adjusts the position of subtitles on the screen.

  Subtitle Text Delay:

  Adjusts the delay time for the subtitles.

Audio output settings

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

- To confirm or change the current sound status

  → Network > Videos > Video Setup

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Sound > SPDIF Selection and press OK to access.
3. Select Auto / PCM / Dolby Audio and press OK to set.

SPDIF Selection

(Auto / PCM / Dolby Audio)

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

- SPDIF is a standard audio transfer file format.

  Auto:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM.

  – Dolby Atmos may be output as Dolby Atmos Bitstream, Dolby Digital Plus, and Dolby AC-4 may be output as Dolby Digital Plus Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

  PCM:

  Digital output signal is fixed to PCM.

  Dolby Audio:

  Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC and AAC are output as Dolby Digital Bitstream or Dolby Digital Plus Bitstream.

  – Dolby Atmos may be output as Dolby Atmos Bitstream from HDMI2 (eARC / ARC function) terminal depending on the connected equipment.

- eARC (Enhanced Audio Return Channel) / ARC (Audio Return Channel) are functions of digital audio output using HDMI cable.

= Note =

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

→ Functions > VIERA Link “HDAVI Control™”

Music

Selecting file

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

Network > Home network > In-House streaming

Network > Network connections

Network > Network settings

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select the media server and press OK to access.
   - To display / hide information of the highlighted media server
     1) Display the option menu with OPTION.
     2) Select Show Info. and press OK to access.
4. Select the file 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.

Playing music

■ 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

  i

- To the previous track

  (red)

- To the next track

  (green)

- To return to list

  BACK

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 Off / Folder / One and press OK to set.

   Folder:

   Repeat the playback within the selected folder.

   One:

   Repeat the playback of the selected one file.

Supported format

Photo format

■ Supported Photo formats

- JPEG (.jpg, .jpeg)

  Sub-sampling:

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

  Image resolution (pixel):

  8 × 8 to 30 719 × 17 279

- 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 multi-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

- AVI (.avi)

  Video codec:

  H.264, MPEG1, MPEG2, MPEG4, VC-1, WMV9

  Audio codec:

  AAC, ADPCM, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, LPCM, MP3, WMA

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

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2, MPEG4

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC, MP3

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

- MKV (.mkv)

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2, MPEG4

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, MP3, Vorbis

- ASF (.asf, .wmv)

  Video codec:

  MPEG4, VC-1, WMV9

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus), HE-AAC, LPCM, MP3, WMA

  - Copy-protected files cannot be played back.

- FLV (.flv)

  Video codec:

  H.264

  Audio codec:

  AAC, MP3

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

  Video codec:

  H.264, MPEG4

  Audio codec:

  AAC, HE-AAC

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

  Video codec:

  MPEG1, MPEG2

  Audio codec:

  Dolby Audio (Dolby Digital), LPCM

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

  Video codec:

  H.264, H.265 (HEVC), MPEG1, MPEG2

  Audio codec:

  AAC, Dolby Audio (Dolby Digital, Dolby Digital Plus, Dolby AC-4), Dolby Atmos, HE-AAC

- WebM (.webm)

  Video codec:

  VP9

  Audio codec:

  Vorbis

■ 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.
- Some subtitles or chapter functions may not be available.
- Do not use multi-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 formats are different in Media Player and media server.

Music format

■ Supported Music formats

- MP3 (.mp3)

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

- FLAC (.flac)

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

- LPCM (.wav)

= Note =

- Some files may not be played back even if they fulfil these conditions.
- Do not use multi-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

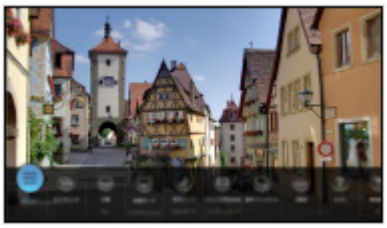
Menu

How to use

You can access various features such as main menu, viewing mode, subtitles, etc. from the menu screen.

1. Display the menu with MENU.

   (Example)



2. Select a feature and press OK to access.

- To set the main menu, select Main Menu.
- To edit / move / hide the menu, select Edit.
- To exit the menu, press BACK.

= Note =

- The design and specifications are subject to change without notice.

Voice Control

Information

The Google Assistant function allows you to operate the TV (e.g. selecting a channel), search the content from various features, etc. with your speech while this unit is connected to the internet.

- When the Google Assistant function is in preparation, the function will be available after the preparation is complete. The Google Assistant function may not be available depending on the country, area or broadcaster.
- The Voice Control function service may be discontinued either temporarily or permanently without notice depending on the service provider. Panasonic will make no warranty for the content or the continuity of the service.
- A broadband network environment is required to use this function. Ensure the network connections and network settings are completed.

  → Network > Network connections

  → Network > Network settings

- Confirm the remote control is registered to this TV with Bluetooth wireless technology before using.

  → Functions > Voice Control > Settings

How to use

1. Press .
2. Say a key word to the microphone of the remote control.

- Follow the on-screen instructions.

■ Pairing

The registration starts automatically when you press any buttons after installing batteries for the first time after purchasing. To register again, take the following steps.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > System Menu > Remote Control Settings and press OK to access.
   - Select Unpair to cancel the pairing and delete the Bluetooth remote control information.
3. Set the item and press OK to store.

Pairing

Registration setting of the remote control for Voice Control function

---

Unpair

Unpair the registered remote control and delete the Bluetooth information of the remote control.

Mode Setting

(Mode1 / Mode2 / Mode3 / Mode4)

Sets the remote control mode of the TV and remote control when using it with infrared.

Mode Error Indication

(On / Off)

Displays an error message when the remote control mode does not work by infrared.

- Please note the TV does not display an error message when Off is set, and you cannot recognise the mismatch of the remote control modes.
- When the remote control is lost in a mode other than Mode1
  - The remote control mode of the TV can be reset to Mode1 using another remote control of Panasonic product. For details, refer to the operating instructions.
  - The remote control mode can be reset by Shipping Condition.

■ Voice Control

Selects the voice service for Voice Control function.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Voice Control and press OK to access.
3. Select the service for Voice Control to use.

- Select to disable the Voice Control function.

Note

- When you start the Voice Control function, the sound level of the TV becomes low.
- The Voice Control function may not work properly in the following conditions:
  - Not pronouncing words clearly and correctly
  - Speaking too loudly or too quietly.
  - Surrounded by loud background noise.
- It is recommended to speak within approx. 15 cm from the microphone of the remote control.
- The design and specifications are subject to change without notice.
- The operations and services available for this unit may differ from the Google Assistant function using smartphone, smart speakers, etc.
- A broadband network environment is required to use this function 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 setting. Please connect to the internet without proxy settings. (Proxy settings are not required for normal household use. For details of the internet environment, consult your Internet Service Provider (ISP) or telecommunications company.)
- If using the 2.4 GHz band on the wireless router, simultaneous use with the remote control may result in connection interruptions. If your wireless router supports 5 GHz band, try using the 5 GHz band. If you have a wired LAN connection, try using the wired LAN connection.

Mirroring

How to use

You can watch and display images of other devices (smartphone, etc.) on the TV screen using a mirroring function.

1 Smartphone, etc.

2 TV

1. Display Home with HOME.
2. Select Devices and press OK to access.
3. Select Mirroring and press OK.
4. Follow the on-screen instructions.

- Pairing information of the device (smartphone, etc.) is registered once you use this function.

■ Easy Mirroring

You can also start the mirroring function from the other devices (smartphone, etc.) when Easy Mirroring is set to On.

→ Functions > Mirroring > Mirroring Settings

- You cannot use Easy Mirroring function while the TV is set to Wireless Access Point.

→ Network > Network settings > Network Status

= Note =

- This function is available with the other devices (smartphone, etc.) supporting the mirroring function. For details, refer to the operating instructions of the devices.

Mirroring Settings

You can set items for the mirroring function.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Network > Mirroring Settings and press OK.
3. Select one of the following items and press OK to access.

   Easy Mirroring / Powered On by Easy Mirroring / Delete All Pairings
4. Set the item and press OK to store.

Easy Mirroring

(On / Off)

Enables starting the mirroring function from the other devices (smartphone, etc.) without operating the TV.

- To deactivate the wireless network, perform the following procedure to turn off the wireless network.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Network > Network Connection > Custom and set to Wired.
  3) Select Network > Mirroring Settings > Easy Mirroring and set to Off.
- Not valid when the TV is set to Wireless Access Point

Powered On by Easy Mirroring

(On / Off)

Enables turning on the TV automatically when the mirroring function is activated from the other devices (smartphone, etc.).

- Changing the default configuration may result in higher energy consumption of the product.
- Use the mirroring function to turn on the TV only when you can see the status of the TV.
- Register the devices (smartphone, etc.) before using this function.
- LED lights orange in Standby mode when Powered On by Easy Mirroring is set to On.

Delete All Pairings

Delete the pairing information for all paired devices.

Multi Window

Information

■ Multi Window

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

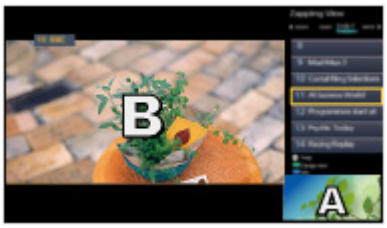
Pre-view

(green)

Dual view

Pre-view

OK



Pre-view

- Pre-view is not available for OLED TV.

- To swap windows

  OK

  – Not valid while recording is in progress
- To exit multi window

  EXIT

= Note =

- Not valid when VRR is set to On

  → Watching > For best picture > Option Settings

Multi Window

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

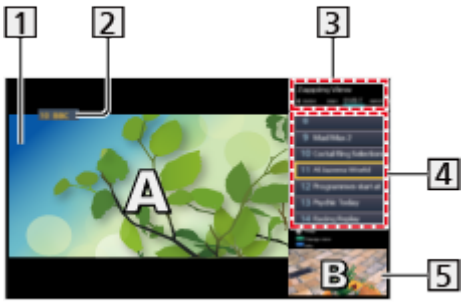
1. Display the menu with MENU.
2. Select Multi Window and press OK to access.

- Not valid when VRR is set to On

Watching > For best picture > Option Settings

■ Pre-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)

– Press ◁ / ▷ to select the TV mode / input mode of the sub screen.

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

– Press △ / ▽ to select the programme of the sub screen.

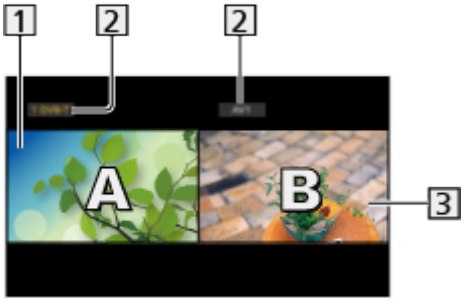
5 Sub screen / information screen

– Press (blue) to change the screen.

- The sound comes only from the main screen.
- Pre-view is not available for OLED TV.

■ Dual 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 the option menu with OPTION.
  2) Select Sound Output and press OK to access.
  3) Select Main / Sub 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 > AV Options
- To display / hide the operation guide

  i

Note

- This function may not work properly depending on the signal format.
- Ensure that Dual Tuner Mode is set to On in Tuning Menu to display Satellite both in two windows.
- Not valid in Analogue
- Not valid when VRR is set to On

  → Watching > For best picture > Option Settings
- Data services are not available in multi window.
- 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.
- Playback in fast-forward or in reverse on the sub screen may affect the picture quality on the main screen.

VIERA Link “HDAVI Control™”

Summary of VIERA Link

Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control™” function.

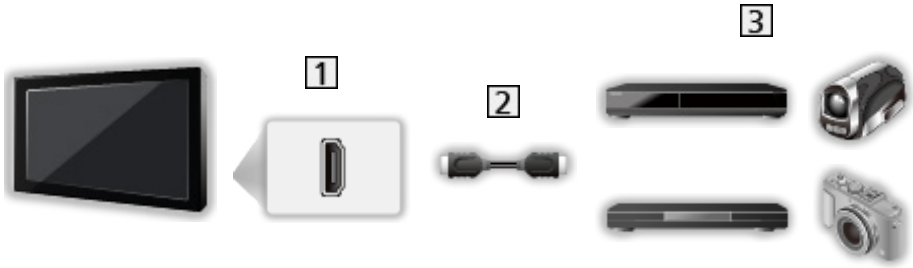
VIERA Link (HDAVI Control) connects the TV and the equipment with VIERA Link function, and enables easy control, playback, energy saving, creating home theatre, etc. without complicated settings. Connections to the equipment (DVD Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cable allow you to interface them automatically. These features are limited to models incorporating “HDAVI Control” and “VIERA Link”.

- 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 “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.
- VIERA Link features may be available even with other manufacturers’ equipment supporting HDMI CEC.
- Please refer to individual manuals for other manufacturers’ product supporting VIERA Link function.
- About applicable Panasonic product, consult your local Panasonic dealer.

■ 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 (DVD Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera)

■ Available features (HDMI connection)

DVD 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

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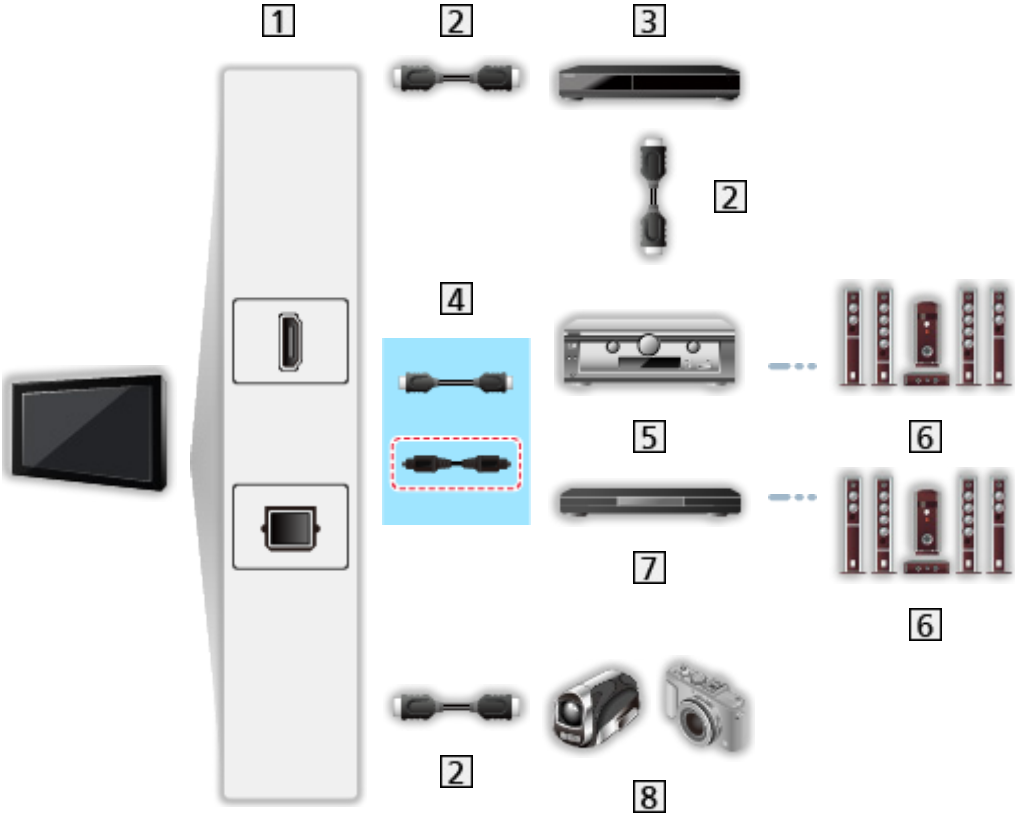
*1 : For equipment which has "HDAVI Control 2 or later" function.

*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 the optical digital audio cable for audio output from the TV.



1 HDMI terminal / DIGITAL AUDIO

2 HDMI cable

3 DVD Recorder with VIERA Link function

4 HDMI cable (Optical digital audio cable*)

5 Amplifier with VIERA Link function

6 Speaker system

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

8 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). 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, DVD Player connected to Amplifier which is connected to the TV via an HDMI cable.

Functions > VIERA Link “HDAVI Control™” > VIERA Link Control

- Recorder:

  Maximum 3

- 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 details of VIERA Link connections

  → Functions > VIERA Link “HDAVI Control™” > Summary of VIERA Link
- Use a fully wired HDMI compliant cable.
- Set up the connected equipment. Read the manual of the equipment.
- Set VIERA Link to On in the Setup Menu.
- 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 operated, the input mode is switched automatically.

Power on Link

Set Power on Link to On in VIERA Link Settings to use this function.

When the connected equipment is operated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off Link

Set Power off Link to On in VIERA Link Settings to use this function.

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 VIERA Link Settings to use this function.

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 quickly start the connected equipment.

- 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 VIERA Link Settings to use this function.

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 it at the TV's signal receiver.

1. Display Home with HOME.
2. Select Apps and press OK to access.
3. Select VIERA Link and press OK to access.
4. Select VIERA Link Control and press OK to access.
5. Select one of the following items and press OK to access.

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

   (The menu of the accessed equipment is displayed. The input mode is 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.
6. 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 Home with HOME.
2. Select Apps and press OK to access.
3. Select VIERA Link and press OK to access.
4. Select Speaker Selection and press OK to access.
5. Select TV / Home Cinema and press OK to set.

   TV:

   TV speakers are active.

   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 Volume Up / Down and MUTE.

■ Multi-channel sound

If you want to enjoy the multi-channel sound (e.g. Dolby Audio (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 multi-channel sound from DIGA Recorder, 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

- Some operations may not be available depending on the equipment.

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 > Help menu > 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, select Main Menu and press OK to access.
2. Select Setup > Child Lock 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 Child Lock List and press OK to access.
5. Select the channel / input and press OK to lock.
   - 🔒 appears when the channel / input is locked.
   - To cancel

     1) Select the locked channel / input.

     2) Press OK.
   - To lock all

     (green)
   - To cancel all locks

     (yellow)
   - To jump to the head of the next channel / input group

     (blue)

■ Show Adult App

Set to Off to lock specific applications to restrict access to them (if available).

= Note =

- For internet content

PIN number

You can change the PIN number.

1. Select Change PIN and press OK to access.
2. Enter a new PIN number twice with 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 and press OK to access.
2. Select an age for the restriction of programmes and press OK to set.

= Note =

- Setting Shipping Condition erases the PIN number and all settings.
- Ireland only

Power LED Indicator

Using Power LED Indicator

Selects the power LED indication mode.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Other Settings and press OK to access.
3. Select Power LED Indicator and press OK to access.
4. Select On / On(Standby Only) / Off and press OK to set.

   On:

   The power LED indicator illuminates continuously.

   On(Standby Only):

   The power LED indicator illuminates only when the TV is turned off with Standby On / Off switch of the TV's remote control.

   Off:

   The power LED indicator is turned off.

= Note =

- The power LED indicator may light when switching the TV status or activating some functions.
- The TV may not display any image on the screen depending upon the input source after setting. This may make it impossible to know whether the TV is turned on or not.

  In particular, when Off is selected, notifications whilst the TV is in standby, cannot be provided, such as USB recording in progress. If a USB device in recording is removed accidentally in such a condition, a device malfunction or data destruction may result.

Data Service Application

Using Data Service Application

- Data Service Applications is not effective on MHEG. (Ireland)

You can enjoy Hybrid Broadcast Broadband TV application that may be provided via digital broadcasting as interactive data services.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Data Service Application > Service and press OK to access.
3. Select Auto Start / Manual Start / Off for each channel.

   Auto Start:

   Automatically starts the application.

   Manual Start:

   Starts the application by pressing (red).

- To sort channel names in alphabetical order

  (red)

- To set Auto Start for all channels

  (green)

- To disable the service for all channels

  (yellow)

- To set Manual Start for all channels

  (blue)

4. Press BACK to store.

- A notification message will appear when the application is available. Follow the on-screen instructions.
- is displayed on the information banner if the programme has Hybrid Broadcast Broadband TV application.

  Watching > Basic > Information banner

  Watching > Basic > Freeview Play banner (UK)

- To terminate the running application. (The default application may start immediately.)

  EXIT

Privacy Setting

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Data Service Application > Privacy Setting and press OK to access.
3. Select Low / High / Custom and press OK to set.

■ To change the privacy settings manually

You can set up the detailed privacy settings when Privacy Setting is set to Custom.

Store Cookie

(On / Off)

Enables storing the technical information that a data service application leaves into the TV in order to recognise to use it again.

Delete Cookie

Deletes all of technical information left by a data service application.

Do Not Track Setting

(Mode1 / Mode2 / Mode3)

Sets to notify websites and some applications about tracking your browsing activities.

Mode1:

Notifies websites that you want to be tracked.

Mode2:

Notifies websites that you do not want to be tracked.

Mode3:

Sends no configuration information about tracking.

Allow Unique Device ID

(On / Off)

Sends identifying ID of this TV for the data service application.

Reset Unique Device ID

Resets the identifying ID of this TV.

Note

- Data Service Applications is not effective on MHEG. (Ireland)
- A broadband network environment is required to fully use Hybrid Broadcast Broadband TV application. Ensure the network connections and network settings are completed.

  → Network > Network connections

  → Network > Network settings
- Not all the data services are available depending on the country, area and broadcaster.
- Not valid in multi window mode
- Depending on the connection environment, the internet connection may be slow or may not be successful.
- Operations may vary depending on the broadcaster. Follow the on-screen instructions.
- On-screen instructions may not correspond to the remote control buttons.

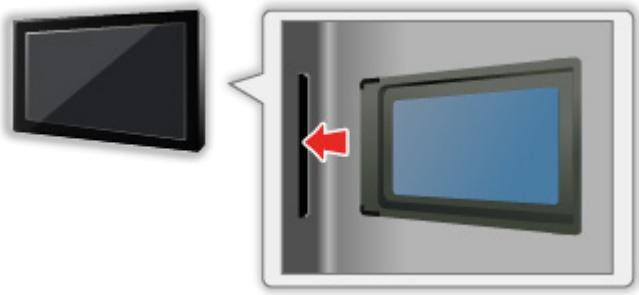
Common Interface

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+ v1.4 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 the broadcast or service.

■ Insert the CI module (optional)

- 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 details, read the manual of the CI module, or check with the content provider.

1. Select DVB with TV.
2. Display the menu with MENU, select Main Menu and press OK to access.
3. Select Setup > System Menu > Common Interface and press OK to access.
4. Press OK and follow the on-screen instructions.

- To enter the CICAM PIN number, select Option Settings.
- 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, select Main Menu and press OK to access.
2. Select Setup > System Menu > Shipping Condition and press OK to access.
3. When a confirmation screen is displayed, select Yes and press OK to set.
4. Follow the on-screen instructions.
   - Auto Setup automatically starts.

= 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, 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 and press OK to set.

  Standby:

  Installs new software in standby condition.

  Now:

  Installs new software now.

= Note =

- Software updating may result in higher energy consumption of the product.

Auto update

You can update new software automatically.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > System Menu > System Update > Auto Update Search in Standby and press OK to access.
3. Select On and press OK to set.

- If any software updates are available, a notification message will appear. To install new software, select Standby / Now and press OK to set.

  Standby:

  Installs new software in standby condition.

  Now:

  Installs new software now.

  Ignore:

  Cancel the software updating.

- 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 cannot be performed in the following conditions:
  – TV turned off with Mains Power On / Off switch
  – Recording is 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, select Main Menu and press OK to access.
2. Select Setup > System Menu > System Update > System Update Search Now 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 Numeric buttons 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 item.

Bluetooth devices

Bluetooth Setup

You can use Bluetooth keyboards*1, Bluetooth mouses*1 and Bluetooth audio devices*2 (headphones, smartphone, etc.) with this TV by setting Bluetooth Setup in the Setup Menu.

*1 : HID (Human Interface Device Profile) and HOGP (Human interface device Over Generic attribute Profile) compliant keyboards and mouses can be used.

*2 : A2DP (Advanced Audio Distribution Profile) and AVRCP (Audio Video Remote Control Profile) compliant audio devices can be used.

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Setup > Bluetooth Setup and press OK to access.
3. Select one of the following items and press OK to access.

   Devices / Bluetooth Audio Mode Setting / Bluetooth Audio Settings
4. Set the item and press OK to store.

Devices

Searches the available device and displays the status.

- Place the device within 50 cm from the TV while registration is in progress.
- Turn the device on for registering. The setup for registration may be required depending on the device. Read the manual of the device.

  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 Mode Setting

(Transmitter / Receiver)

Selects the TV's Bluetooth audio mode.

Transmitter:

Connects an audio device such as headphones, speaker, etc.

- When the mode is set to Transmitter, connect audio devices such as headphones, speaker, etc. from Devices.

Receiver:

Connects an audio device such as a smartphone, audio player, etc.

Bluetooth Audio Settings

Adjusts the volume for an audio device, etc. in the transmitter mode.

Audio Output:

Sets to Bluetooth only to mute the TV speakers automatically when using a Bluetooth audio device. And you can adjust the volume of the device using Volume Up / Down.

Sets to All to activate both TV speakers and Bluetooth audio device.

Volume:

Adjusts the volume of a Bluetooth audio device.

- If the volume is low, check the volume setting of the Bluetooth audio device.

Audio Control:

Sets to control a Panasonic Bluetooth audio device with this TV.

- Settings on a Panasonic Bluetooth audio device are also required to use this audio control function.

Dual Audio:

Sets to On to use two audio devices simultaneously.

- If the sound interruption occurs, set to Off and use one device only.

Audio Bit Rate:

Sets to High normally when using two audio devices simultaneously.

High: High sound quality

Low: High connectivity of sound

- When Dual Audio is set to On, Audio Bit Rate is set to Low automatically. (High can be selected manually.)
- When Dual Audio is set to Off, Audio Bit Rate is set to High automatically. (Low can be selected manually.)
- Setting to Low may resolve the sound interruption.

- Settings in the Sound Menu may not be effective for the Bluetooth audio devices.
- To use Audio Link
  1) Display Home with HOME.
  2) Select Apps and press OK to access.
  3) Select Audio Link and press OK to access.
  4) Follow the on-screen instructions.
- This setup is not designed for the remote control supporting Bluetooth wireless technology.
- For secure connection, it is recommended to use a device supporting Bluetooth 4.2 or later. The encryption type depends on the connected device.
- If using the 2.4 GHz band on the wireless router, simultaneous use with Bluetooth device may result in connection interruptions. If your wireless router supports 5 GHz band, try using the 5 GHz band. If you have a wired LAN connection, try using the wired LAN connection.

  Also try to set Unpair in Remote Control Settings to cancel the pairing and delete the Bluetooth remote control information. (Voice control function using the microphone of the remote control is only disabled.)

  → Functions > Voice Control > Settings
- If the sound interruption occurs, place Bluetooth device closer to the TV.
- When a Bluetooth device is connected to the TV, it is possible that the Bluetooth audio output may not be synchronised (i.e. be delayed) with relation to the images on the screen. This is not a defect of the TV or the device. The delay time will differ depending on the device.

Keyboard

Keyboard

- Keyboards requiring the drivers are not supported.
- To change the language type, set Keyboard Layout.
  1) Display the menu with MENU, select Main Menu and press OK to access.
  2) Select Setup > System Menu > Keyboard Layout and press OK to access.
  3) Select the language and press OK to set.
- 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
Esc	EXIT
0 - 9 / Character	Numeric buttons
F1	HOME
F2	Displays Apps.
F3	MENU
F4	AV
F5 / F6	Channel Down / Up
F7 / F8	Volume Down / Up
F9 / F10 / F11 / F12	Coloured buttons

Settings

Setting main menu

How to use

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

1. Display the menu with MENU, select Main Menu and press OK to access.
   - Displayed items vary depending on the input signal.
2. Select the menu and press OK to access.
3. Select the items 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 Cursor buttons and press OK to set.

     – You can set characters using Numeric buttons.

Functions > Setting characters > Using Numeric buttons

  2) Press (green) to store.
- To reset the settings
  – To initialise picture or sound settings only, select Reset to Defaults in the Picture Menu or Sound Menu.
  – To initialise all settings, select Shipping Condition.

Functions > Shipping Condition

- To exit the menu screen

  EXIT

- To return to the previous screen

  BACK

= Note =

- Menu items and selectable options vary depending on the mode (TV mode, Media Player, Network services, etc.).
- Some settings in Picture menu may also affect the menu screen when watching content in 4K format.
- 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.

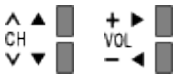
  → Functions > Shipping Condition

- Depending on the model, the initial setting value of Viewing Mode may differ between Home and Shop even when selecting the same viewing mode.

  The setting value can be adjusted by pressing MENU and selecting Picture.

■ Using control panel buttons

1. Press and hold INPUT/OK/HOLD for MENU button for 3 seconds to display the main menu.
2. Select and set with following control panel buttons.
   - Move the cursor / select from a range of options / select the menu item / adjust levels

   - 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.

Watching > For best picture > Viewing Mode

Basic settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

Luminance Level, Backlight, Contrast, Brightness, Colour, Tint, Sharpness

Adjusts the levels of these options according to your personal preference.

Watching > For best picture > Basic settings

Colour Temperature

Sets the overall colour tone of the picture (bluer - redder).

Watching > For best picture > Basic settings

Colour Remaster

Displays the vivid images with the expanded colour gamut.

Watching > For best picture > Basic settings

Rec.2020 Colour Remaster

Displays the vivid images with the suitable colour gamut.

Watching > For best picture > Basic settings

Adaptive Backlight Control

Automatically controls the level of backlight according to the images.

Watching > For best picture > Basic settings

Resolution Remaster

Enhances picture resolution to make the image sharper.

Watching > For best picture > Basic settings

Dynamic Range Remaster

Enhances bright areas of the image closer to the original luminance making improved picture impact.

Watching > For best picture > Basic settings

Dark Visibility Enhancer

Adjusts the black level or middle luminance level.

Watching > For best picture > Basic settings

Intelligent Frame Creation

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

→ Watching > For best picture > Basic settings

Ambient Sensor Settings

Automatic Brightness Control function

Adjusts picture settings automatically depending on ambient lighting condition.

Watching > For best picture > Ambient Sensor Settings

Noise reduction settings

Noise Reduction

Reduces unwanted picture noise.

Watching > For best picture > Noise reduction settings

MPEG Remaster

Reduces flicker noise in contoured parts of a picture and block noise.

Watching > For best picture > Noise reduction settings

Advanced Settings

You can adjust and set up the detailed picture settings.

Watching > For best picture > Advanced Settings

Option Settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

Input Lag

Provides suitable images for fast response signals when playing games.

Watching > For best picture > Option Settings

ALLM

Automatically switches the TV to Game Mode according to the ALLM information when using this TV in single window mode.

Watching > For best picture > Option Settings

NVIDIA Auto Game Mode

Set to On to enable NVIDIA HDMI 2.1 gaming function.

Watching > For best picture > Option Settings

VRR

Provides smoother gaming experience with low latency and without image stuttering or tearing.

Watching > For best picture > Option Settings

Film Cadence Mode

Improves vertical resolution for movie images.

Watching > For best picture > Option Settings

1080p Pure Direct

Reproduces the original image quality in detail for 1080p (HDMI) input signal.

Watching > For best picture > Option Settings

4K Pure Direct

Reproduces the original image quality in detail for 4K (HDMI) input signal.

Watching > For best picture > Option Settings

4K 120Hz Bypass Mode

Reproduces the original image quality in detail for 4K 120 Hz signal. Some picture menu items are not available when 4K 120Hz Bypass Mode is set to On.

Watching > For best picture > Option Settings

60Hz Refresh Mode

Reduces the input lag when connecting 60Hz output game equipment.

Watching > For best picture > Option Settings

HDMI Content Type

Adjusts the picture settings of each HDMI input according to the selected content type.

Watching > For best picture > Option Settings

HDMI EOTF Type

Selects the EOTF type for each HDMI input. Set to Auto for general use.

Watching > For best picture > Option Settings

EOTF Type

Selects the EOTF type of broadcast or video content.

Watching > For best picture > Option Settings

HDMI Colorimetry Type

Selects the colourimetry type for each HDMI input.

Watching > For best picture > Option Settings

HDMI RGB Range

Adjusts the black level of the image for each HDMI input.

Watching > For best picture > Option Settings

HDMI YCbCr Range

Adjusts the black level of the image in the YCbCr signal for each HDMI input.

Watching > For best picture > Option Settings

Screen Settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

Aspect

Changes the aspect ratio (image size).

Watching > For best picture > Aspect

16:9 Overscan

Selects the screen area displaying the image for 16:9 aspect.

Watching > For best picture > Screen Settings

Zoom Adjustments

Adjusts the vertical position and size when aspect is set to Zoom.

Watching > For best picture > Screen Settings

Screen Display

Turns the screen off when you select Off.

Watching > For best picture > Screen Settings

Pixel Orbiter

Sets the pixel shifting of the image to prevent panel “image retention”.

Watching > For best picture > Screen Settings

Logo Luminance Control

Adjusts the luminance level of the displayed logo to prevent panel “image retention”.

Watching > For best picture > Screen Settings

Panel Maintenance

Turns the screen off and perform the maintenance to prevent the panel “image retention”.

Watching > For best picture > Screen Settings

PICTURE Button Setting

Sets the viewing mode selection when pressing PICTURE.

Watching > For best picture > Viewing Mode

Lock Settings

Locks the settings of Professional1 / 2 / Dolby Vision IQ / Dolby Vision Dark for each input.

Watching > For best picture > Lock Settings

Copy Adjustment

Copies the picture settings of Filmmaker, True Cinema, Custom, Professional1, Professional2, Game, Dolby Vision IQ, Dolby Vision Bright or Dolby Vision Dark to those of the other input mode or Viewing Mode.

→ 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.

Watching > For best audio > Sound mode

Basic settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

Bass

Adjusts level to enhance or minimise lower, deeper sound output.

Watching > For best audio > Basic settings

Treble

Adjusts level to enhance or minimise sharper, higher sound output.

Watching > For best audio > Basic settings

Equaliser

Adjusts the frequency level to suit your favourite sound quality.

Watching > For best audio > Basic settings

Balance

Adjusts the volume level of right and left speakers.

Watching > For best audio > Basic settings

Sound Focus Mode

Selects your favorite Sound Focus mode.

Watching > For best audio > Line Array Speaker Sound Focus settings

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Sound Focus Positioning

Adjusts the sound focusing position and balance for line array speakers.

Watching > For best audio > Basic settings

Dolby Atmos

Provides the precise sound of Dolby Atmos when playing Dolby Atmos content. Set to On for general use.

Watching > For best audio > Basic settings

Sound Field Creation

Selects your favourite sound field setting.

Watching > For best audio > Basic settings

Surround

Selects surround sound settings.

Watching > For best audio > Basic settings

Bass Boost

Enhances the effect of bass sounds.

Watching > For best audio > Basic settings

Sport Link

Automatically sets the sound mode to Stadium when Viewing Mode is set to Sport.

Watching > For best audio > Basic settings

Volume settings

Some features are not available on all models. Available menu items are displayed on your TV screen.

Space Tune Setting

Adjusts the sound quality automatically according to the installation location or room condition.

Watching > For best audio > Volume settings

Speaker Selection

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

Watching > For best audio > Volume settings

TV Speaker Setting

Selects the sound output to adjust the volume.

Watching > For best audio > Volume settings

Auto Gain Control

Automatically regulates large sound level differences between channels and inputs.

Watching > For best audio > Volume settings

Volume Correction

Adjusts the volume of each individual channel or input mode.

Watching > For best audio > Volume settings

Clear Sound Adjustment

If the sound from TV speakers is unclear due to installation environment, On is recommended.

Watching > For best audio > Volume settings

Dialogue Enhancement

Enhances the intelligibility of dialogue and commentary.

Watching > For best audio > Volume settings

Headphone terminal output setting

Sets the sound output from the headphone terminal.

Watching > For best audio > Headphone terminal output setting

Voice Guidance Settings

Voice Guidance

Set to On to enable voice guidance of the basic features (on-screen messages, etc.) for visually impaired users.

Watching > For best audio > Voice Guidance Settings

Speed

Selects the readout speed for the voice guidance.

Watching > For best audio > Voice Guidance Settings

Volume

Selects the volume for the voice guidance.

Watching > For best audio > Voice Guidance Settings

User Level

Selects the level of verbosity for the voice guidance.

Watching > For best audio > Voice Guidance Settings

Web Browser

Set to On to enable voice guidance of the network content in web browser function.

Watching > For best audio > Voice Guidance Settings

Audio Description

Preferred Audio Type

Narration settings for visually impaired users

Watching > For best audio > Audio Description

Volume

Adjusts the volume for Audio Description.

Watching > For best audio > Audio Description

Advanced settings

NICAM

Near Instantaneous Companded Audio Multiplex

Reproduces NICAM stereo sound.

Watching > For best audio > Advanced settings

Audio Preference

Selects the initial setting for audio tracks.

Watching > For best audio > Advanced settings

AV Sync

Delays the video signal to adjusts the output timing difference between video and audio outputs.

Watching > For best audio > Advanced settings

SPDIF Selection

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

Watching > For best audio > Advanced settings

HDMI Audio Format

Selects the audio format for the HDMI input signal.

Watching > For best audio > Advanced settings

PCM Optical Level

Adjusts the audio level of PCM output from DIGITAL AUDIO and HDMI2 (eARC / ARC function) terminals to equalise with that of the other audio types.

Watching > For best audio > Advanced settings

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eARC

Set to On to enable the eARC (Enhanced Audio Return Channel) function when the equipment supporting eARC function is connected to this TV.

Watching > For best audio > Advanced settings

SPDIF Delay

Adjusts the delay time of the sound output from DIGITAL AUDIO and HDMI2 (eARC / ARC function) terminals if the sound does not synchronise the image.

Watching > For best audio > Advanced settings

HDMI Input

Selects to fit the input signal.

Watching > For best audio > Advanced settings

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.

Network > Network settings > Network Connection

Network Status

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

Network > Network settings > Network Status

TV Name

Sets your favourite name for this TV.

Network > Network settings > TV Name

TV Remote App Settings

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

→ Network > Network settings > TV Remote App Settings

Network Link Settings

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

Network > Network settings > Network Link Settings

Smart Speaker Settings

Controls this TV such as selecting a channel, changing volume, etc. with the smart speaker function.

→ Network > Network settings > Smart Speaker Settings

Mirroring Settings

Settings for the mirroring function

Functions > Mirroring > Mirroring Settings

Control4 Settings

Settings for the Control4 function

Network > Network settings > Control4 Settings

Other settings

VOD Content Refresh

Selects whether to update the VOD content to the latest even when the TV is in Standby mode.

Network > Network settings > VOD Content Refresh

Software Update

Updates the TV's software if any updates are available.

Network > Network settings > Software Update

New Software Message

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

Network > Network settings > New Software Message

IPv6

Enables the IPv6 function for the network connections.

Network > Network settings > IPv6

Terms of Service and Settings

Displays the terms of service and settings.

Network > Network settings > Terms of Service and Settings

Samba Interactive TV Settings

Settings for the Samba interactive TV services

Network > Network settings > Samba Interactive TV Settings

Timer

On Timer

Automatically turns the TV on at the set time with the preset channel, volume, etc.

Watching > Basic > Energy saving functions

Off Timer

Sets the duration of time until the TV automatically goes into Standby mode.

Watching > Basic > Off Timer

Timer Programming

Sets a timer to record forthcoming programmes.

Recording > Timer Programming > Setting Timer Programming

Time Zone

Adjusts the time data.

Watching > Basic > Adjusting time

Auto Standby

Automatically turns the TV to Standby mode for energy saving when no operation is performed for 4 hours.

→ Watching > Basic > Energy saving functions

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.

→ Watching > Basic > Energy saving functions

Setup

Voice Control

Selects the voice service for Voice Control function.

Eco Navigation

Automatically sets the TV to the most suitable energy-saving mode.

→ Watching > Basic > Energy saving functions

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 > One Touch Recording

Recording > Recording current programme > Rewind LIVE TV

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 > Using Child Lock

Tuning Menu

Channel List Editor

You can edit the channel list by adding or deleting channels, etc.

→ Watching > Tuning and editing channels > Channel List Editor

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Favourites Editor

Creates a list of favourite channels.

→ Watching > Tuning and editing channels > Favourites Editor

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

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Manual Tuning

Searches for channels manually.

→ Watching > Tuning and editing channels > Manual Tuning

Update Channel List

Updates the channel list while keeping your settings.

→ Watching > Tuning and editing channels > Update Channel List

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Auto Update Channel List

Selects whether or not broadcast changes are automatically updated in your channel list.

→ Watching > Tuning and editing channels > Other settings

Signal Condition

Checks the signal condition.

→ Watching > Tuning and editing channels > Signal Condition

LNB Configuration

Selects the satellite for each LNB.

Dual Tuner Mode

Set to On to use dual tuner function.

→ Watching > Tuning and editing channels > Auto Setup

Add New Channels

Adds new satellite channels to the channel list.

→ Watching > Tuning and editing channels > Add New Channels

Add TV Signal

Adds the TV mode.

→ Watching > Tuning and editing channels > Other settings

= Note =

- The settings in Tuning Menu are applicable only for the selected TV mode. The menu name varies depending on the TV mode and country you select. (Freeview Tuning Menu / DVB Tuning Menu / Analogue Tuning Menu / Satellite Tuning Menu)

Language

Preferred Multi Audio

Selects the preferred language for digital channel multi audio (depending on the broadcaster).

→ Watching > Basic > Language

Preferred Audio 1 / 2

Selects the first and second preferred language for digital channel multi audio (depending on the broadcaster).

→ Watching > Basic > Language

Preferred Subtitles 1 / 2

Selects the first and second preferred language for digital channel subtitles (depending on the broadcaster).

→ Watching > Basic > Language

Preferred Subtitles

Selects the preferred language for digital channel subtitles (depending on the broadcaster).

→ Watching > Basic > Language

Preferred Teletext

Selects the preferred language for digital channel teletext service (depending on the broadcaster).

→ Watching > Basic > Language

Display Settings

Preferred Subtitle Type

Selects the preferred subtitle type.

Watching > Basic > Subtitle

Teletext

Selects analogue teletext display mode.

Watching > Teletext > Teletext mode

Teletext Character Set

Selects teletext language font.

Watching > Teletext > Teletext Character Set

Input Labels

Accessing the input labels list allows you to change the input name or skip the input if unconnected, improving identification and selection in the Input Selection banner.

Watching > External equipment > Watching external input

Banner Display Timeout

Sets how long the information banner stays on screen.

Watching > Basic > Information banner

Watching > Basic > Freeview Play banner (UK)

Playing Time Display

Set to On to display a time period of continuous use in Game Mode on the top right of the screen every 30 minutes.

Watching > External equipment > Watching external input

Radio Mode

Sets the timer for turning off the screen automatically when a radio channel is selected.

Watching > Basic > Energy saving functions

Notification

(On / Off)

Displays a notification message.

Dolby Notification

(On / Off)

Displays a Dolby notification.

HDMI Auto Setting

Set to Mode1 when the image or sound in HDMI input is not played properly.

→ Watching > 4K resolution > HDMI Auto Setting

HDMI HDR Setting

Settings for input signal from the connected HDR device

Watching > External equipment > HDMI HDR Setting

VIERA Link Settings

VIERA Link

Sets to use VIERA Link functions.

Functions > VIERA Link “HDAVI Control™” > Preparations

Power on Link

Sets to use Power on Link functions.

Functions > VIERA Link “HDAVI Control™” > Power on Link

Power off Link

Sets to use Power off Link functions.

Functions > VIERA Link “HDAVI Control™” > Power off Link

Standby Power Save

Controls the connected equipment to reduce power consumption in Standby.

Functions > VIERA Link “HDAVI Control™” > Standby Power Save

Intelligent Auto Standby

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

Data Service Application

Service

Sets to use Hybrid Broadcast Broadband TV application.

Functions > Data Service Application > Using Data Service Application

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Privacy Setting

Settings for the privacy in the interactive data services

Functions > Data Service Application > Privacy Setting

Home Settings

Auto Pin

Selects whether to automatically add a shortcut for a feature frequently used on Home.

Home > Home > How to use

System Menu

Keyboard Layout

Selects the language that your USB or Bluetooth Keyboard supports.

Functions > Keyboard > Keyboard

Remote Control Settings

Settings for the remote control mode of the TV and remote control

Functions > Voice Control > Settings

Shipping Condition

Resets all settings to the original condition.

Functions > Shipping Condition > Shipping Condition

Common Interface

Sets to watch encrypted channels, etc.

Functions > Common Interface > Using Common Interface

System Update

Downloads new software to this TV.

Functions > Updating the TV Software > Auto update

Licence Menu

Displays the software licence information.

Other Settings

Power on Channel List

Automatically selects all channels or favourites list in the information banner when the TV is turned on.

→ Watching > Basic > Selecting channel

Power Save

(On / Off)

Reduces brightness of the picture to economise on power consumption.

Power LED Indicator

Selects the power LED indication mode.

→ Functions > Power LED Indicator > Using Power LED Indicator

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HDMI Signal Power Link Setting

Setting for power link function for the connected HDMI devices

→ Watching > External equipment > HDMI Signal Power Link Setting

Support

Help menu

Using Help menu

1. Display the menu with MENU, select Main Menu and press OK to access.
2. Select Help and press OK to access.
3. Select TV Self Test / System Information / Device Information and press OK to access.

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.

FAQs

Picture

Some features are not available on all models. Available menu items are displayed on your TV screen.

Before requesting service or assistance, please follow these simple guides to solve the problem. Also makes a diagnosis of picture problem in TV Self Test.

Support > Help menu > Using Help menu

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

- Set Aspect in the Picture Menu 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.

Chaotic image, noisy

- Set Noise Reduction and MPEG Remaster in the Picture Menu to remove noise.

  Watching > For best picture > Noise reduction settings

- Check nearby electrical equipment (car, motorcycle, fluorescent lamp).

No image is displayed

- Check the correct input mode is selected.
- Is Luminance Level, Backlight, Contrast, Brightness or Colour in the Picture Menu set to the minimum?

  Watching > For best picture > Basic settings

- Check all required cables and connections are firmly in place.

Blurry or distorted image (no sound or low volume)

- Reset channels.

  Watching > Tuning and editing channels > Auto Setup

There may be a short black image

- A black image is displayed to avoid picture distortion when an input signal changes.

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

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

Digital TV

Some features are not available on all models.

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 the level of Signal Quality is low, 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 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, then turn it on again.

Satellite Auto Setup cannot be done completely

- Check connections and dish alignment.

  Watching > Basic > Basic connection
- If the problem persists, consult your local dealer.

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 transmitter.
- Adjust the direction of the aerial or dish to another transmitter installed nearby.
- Check the aerial connection to the Television set and if there are any current signalling issues in your area.
- Contact Panasonic Customer Support by visiting

  www.panasonic.co.uk/freeview
- Contact the digital services provider to check for any local transmission issues by visiting www.freeview.co.uk
- Consult an aerial engineer to check the alignment of your aerial.

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 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, then turn it on again.
- If the problem persists, consult your local dealer or service provider for the availability of services.

Sound

Before requesting service or assistance, please follow these simple guides to solve the problem. Also makes a diagnosis of sound problem in TV Self Test.

→ Support > Help menu > Using Help menu

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.

  → Watching > For best audio > Volume settings

  → Functions > VIERA Link “HDAVI Control™” > Speaker Selection
- Ensure that TV Speaker Setting is set to TV Speaker.

  → Watching > For best audio > Volume settings

Sound level is low or sound is distorted

- Sound signal reception may be poor.
- Set NICAM in the Sound Menu to Off. (Analogue)

  → Watching > For best audio > Advanced settings

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

- Check the setting of HDMI Audio Format in the Sound Menu to match the audio signal from the connected equipment.

  → Watching > For best audio > Advanced settings

- Check the HDMI Input setting in the Sound Menu.

  → Watching > For best audio > Advanced settings

- If digital sound connection has a problem, select analogue sound connection.

  → Watching > External equipment > HDMI features

- Set HDMI Auto Setting in the Setup Menu to Mode1.

  → Watching > 4K resolution > HDMI Auto Setting

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.
- Set HDMI Auto Setting in the Setup Menu to Mode1.

  → Watching > 4K resolution > HDMI Auto Setting

- The valid 4K format varies depending on the HDMI terminal.

  → Watching > 4K resolution > Valid 4K format

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.

  → Network > Network connections

- Check the connections and settings.

  → Network > Network connections

  → 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.

  → 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.

  → Network > Network settings > Network Status

- Reset the setting information of IP address and DNS address from Network Status and select Try Again.

  → Network > Network settings > Network Status

- If the problem persists, consult your Internet Service Provider or telecommunications company.

Cannot select the file during in-house streaming operations

- Is media server of the connected equipment prepared?

  → Network > Home network > In-House streaming

- Check applicable data format.

  → Network > Supported format

- Check the settings of Network Link Settings.

  → Network > Network settings > Network Link Settings

Cannot operate internet content

- Check the connections and settings.

  Network > Network connections > Internet connection

  Network > Network settings

- The server or connected line may be busy now.

Other

Some features are not available on all models.

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

- Parts of the TV may become hot. These temperature rises do not pose 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.

Voice Control function does not work

- Confirm the remote control is paired with this TV. If the remote control is not paired, set Remote Control Settings in Setup.

  → Functions > Voice Control > Settings

- Voice Control function may not work properly depending on the pronunciation, noise and network environment.
- For details of the Voice Control function

  → Functions > Voice Control

- Check the connections and settings.

  → Network > Network connections

  → Network > Network settings

LED does not light

- Set Power LED Indicator in the Setup Menu to On.

  → Functions > Power LED Indicator > Using Power LED Indicator

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LED does not light red in Standby mode

- LED lights orange in Standby mode in the following conditions:
  - On Timer is set to On.
  - Recording is in progress.
  - Timer Programming is set.
  - Home Network Server is set to On.
  - Powered On by Apps is set to On.
  - Home Streaming is set to Always.
  - Powered On by Easy Mirroring is set to On.
  - VOD Content Refresh is set to On and VOD content is updated.
- LED lights orange during adjustment of the panel (approx. 10 minutes). LED lights orange again in standby mode when the TV is turned on / off before the panel adjustment is completed. (Be sure to turn the TV off with the remote control to adjust the panel.)

When pushed with a finger, the display panel moves slightly and makes a noise

- There is a little gap around the panel to prevent damage to the panel. This is not a malfunction.

Detailed information

Support information about the application, optional devices, operation, etc. may be found on the following website.

https://panasonic.jp/support/global/cs/tv/ (English only)

Maintenance

Care and Cleaning

First, remove the mains plug from the mains socket.

■ Display panel, Cabinet, Pedestal

Regular care:

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

For stubborn dirt:

(1) First clean the dust from the surface.

(2) Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).

(3) Wring out the cloth firmly. (Please note, do not let liquid enter the TV inside as it may lead to product failure.)

(4) Carefully wipe moisten and wipe away the stubborn dirt.

(5) 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 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.